United States
Department of
Agriculture

Natural
Resources
Conservation
Service

In cooperation with
United States Department
of Agriculture, Forest
Service and University of
Georgia, College of
Agricultural and
Environmental Sciences,
Agricultural Experiment
Stations

Soil Survey of Murray and Whitfield Counties, Georgia

How To Use This Soil Survey

General Soil Map

The general soil map, which is a color map, shows the survey area divided into groups of associated soils called general soil map units. This map is useful in planning the use and management of large areas.

To find information about your area of interest, locate that area on the map, identify the name of the map unit in the area on the color-coded map legend, then refer to the section **General Soil Map Units** for a general description of the soils in your area.

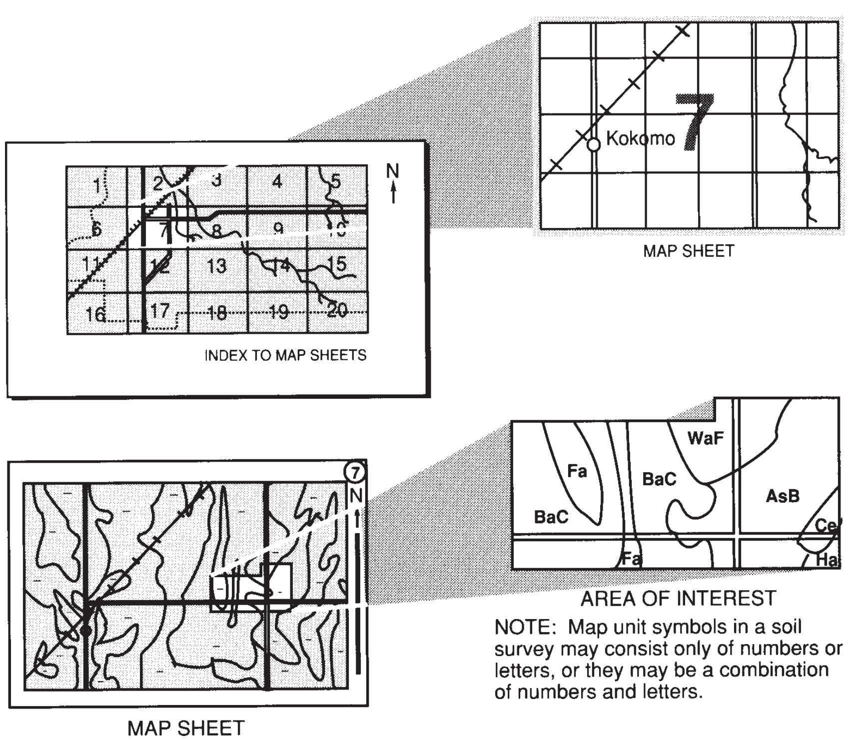
Detailed Soil Maps

The detailed soil maps can be useful in planning the use and management of small areas.

To find information about your area of interest, locate that area on the **Index to Map Sheets**. Note the number of the map sheet and turn to that sheet.

Locate your area of interest on the map sheet. Note the map unit symbols that are in that area. Turn to the **Contents**, which lists the map units by symbol and name and shows the page where each map unit is described.

The **Contents** shows which table has data on a specific land use for each detailed soil map unit. Also see the **Contents** for sections of this publication that may address your specific needs.



National Cooperative Soil Survey

This soil survey is a publication of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (formerly the Soil Conservation Service) has leadership for the Federal part of the National Cooperative Soil Survey. This survey was made cooperatively by the Natural Resources Conservation Service; the United States Department of Agriculture, Forest Service; and the University of Georgia, College of Agricultural and Environmental Sciences, Agricultural Experiment Stations. The survey is part of the technical assistance furnished to the Limestone Valley Soil and Water Conservation District. The Murray County Board of Commissioners and the Whitfield County Board of Commissioners provided financial assistance for the survey.

Major fieldwork for this soil survey was completed in 1997. Soil names and descriptions were approved in 2001. Unless otherwise indicated, statements in this publication refer to conditions in the survey area in 2001. The most current official data are available on the Internet at http://websoilsurvey.nrcs.usda.gov.

Soil maps in this survey may be copied without permission. Enlargement of these maps, however, could cause misunderstanding of the detail of mapping. If enlarged, maps do not show the small areas of contrasting soils that could have been shown at a larger scale.

Nondiscrimination Statement

Cover: A pasture in an area of Arkabutla silt loam, 0 to 2 percent slopes, occasionally flooded. This soil is well suited to pasture. The Montevallo and Townley soils on the lower hills and ridges beyond the pasture primarily are used for woodland. The Junaluska, Tsali, and Cataska soils on the mountains in the background are managed for woodland, recreation, and wildlife habitat.

Additional information about the Nation's natural resources is available online from the Natural Resources Conservation Service at http://www.nrcs.usda.gov.

Contents

Issued 2007

Foreword

Soil surveys contain information that affects land use planning in survey areas. They include predictions of soil behavior for selected land uses. The surveys highlight soil limitations, improvements needed to overcome the limitations, and the impact of selected land uses on the environment.

Soil surveys are designed for many different users. Farmers, foresters, and agronomists can use the surveys to evaluate the potential of the soil and the management needed for maximum food and fiber production. Planners, community officials, engineers, developers, builders, and home buyers can use the surveys to plan land use, select sites for construction, and identify special practices needed to ensure proper performance. Conservationists, teachers, students, and specialists in recreation, wildlife management, waste disposal, and pollution control can use the surveys to help them understand, protect, and enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. The information in this report is intended to identify soil properties that are used in making various land use or land treatment decisions. Statements made in this report are intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

These and many other soil properties that affect land use are described in this soil survey. The location of each soil is shown on the detailed soil maps. Each soil in the survey area is described, and information on specific uses is given. Help in using this publication and additional information are available at the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.

James E. Tillman, Sr.
State Conservationist
Natural Resources Conservation Service

Soil Survey of
Murray and Whitfield Counties, Georgia

By Catherine E. Scott and Douglas E. Cabe, Natural Resources Conservation Service

Fieldwork by Douglas E. Cabe, Joan B. Howard, K. Steve Lawrence, Edward E. Looper, J. Greg Taylor, and Gloria J. York, Natural Resources Conservation Service; Chattahoochee National Forest lands surveyed under Forest Service contract by consultant soil scientists James H. Brown, Edward L. O'Brien, and Johnny Woodruff

United States Department of Agriculture, Natural Resources Conservation Service,
in cooperation with
United States Department of Agriculture, Forest Service and the University of Georgia, College of Agricultural and Environmental Sciences, Agricultural Experiment Stations

Murray and Whitfield Counties are located in the northwestern part of Georgia (fig. 1). The survey area is bordered on the east by Fannin and Gilmer Counties, on the west by Catoosa and Walker Counties, and on the south by Gordon County. Tennessee forms the northern boundary of the survey area.

Murray County consists of about 347 square miles, or 222,200 acres. According to the 2000 census, the population of the county was about 36,500 (USDC, 2000). The

Figure 1.—Location of Murray and Whitfield Counties in Georgia.

county seat, Chatsworth, is centrally located and had a population of about 3,500. Chatsworth is approximately 90 miles northwest of Atlanta.

Whitfield County consists of about 291 square miles, or 186,200 acres. The population in 2000 was about 83,525 (USDC, 2000). The city of Dalton, the county seat, had a population of about 27,900. Dalton is located in the central part of the county and is approximately 90 miles northwest of Atlanta and about 30 miles southeast of Chattanooga, Tennessee.

As of 2006, approximately 63,079 acres of the Chattahoochee National Forest was in Murray and Whitfield Counties. Soil surveys on National Forest lands were coordinated by the United States Department of Agriculture, Forest Service using soil scientists under contract with the Forest Service. The Natural Resources Conservation Service cooperated with the Forest Service in correlating the contract soil survey for inclusion in this survey.

The Congressionally designated Cohutta Wilderness Area covers approximately 5,158 acres of the Chattahoochee National Forest in Murray County. These acres are managed for minimal human intervention and were not surveyed for this soil survey. This area is identified on the soil survey sheets and is excluded from the general soil map of Murray County.

General Nature of the Survey Area

This section provides general information concerning the survey area. It describes settlement and history; geology; farming; physiography, relief, and drainage; industries, utilities, and transportation; mines and minerals; water resources; woodlands; and climate.

Settlement and History

Murray and Whitfield Counties were once part of the vast county of Cherokee. Created in 1831 by a legislative act, Cherokee County was in the heart of the Cherokee Nation. Later in 1832, a treaty signed by the United States Government allowed the state to take control of the lands from the Cherokee. A land lottery was then commenced that granted white settlers parcels of 160 acres. During 1838 and 1839, the Cherokee people were forcibly removed from the area. This removal became part of the legendary “Trail of Tears” (Howard, 1996; Whitfield-Murray Historical Society, 1999).

Murray County was created in 1832 and named in honor of the former speaker of the Georgia House, Mr. Thomas W. Murray. Spring Place, a Moravian mission to the Cherokee Indians, became the county seat. The area was completely agricultural and somewhat secluded until 1906 when a railroad was built through the county along the mountains. This allowed resources, such as timber and talc, to be shipped out of the mountains. However, the railroad bypassed Spring Place and ran through the infant town of Chatsworth. Because it was more accessible, Chatsworth quickly began to grow and prosper. In 1913, after bitter controversy, Chatsworth was named the new county seat (Howard, 1996).

In 1847, another settlement called Cross Plains became part of the newly established city of Dalton. Four years later, in 1851, Whitfield County was created from Murray County. It was named for George Whitefield who was a noted Christian minister who came to Georgia from England in the late 1700s. Dalton was chosen as the county seat. The town grew rapidly because of trade and the arrival of the railroad (Whitfield-Murray Historical Society, 1999).

During the Civil War, Dalton became an important place to the Confederates for its manufacturing and its hospital. Dalton was also the headquarters for General Joseph

E. Johnston during the winter of 1863-1864. Thousands of Confederate troops camped in and around Dalton. In early May 1864, fierce battles were fought at Rocky Face Ridge and Dug Gap for control of Johnston's fortified position at Dalton. Eventually, in the early morning of May 11, 1864, the larger Union Army was able to circle south and advance towards Johnston's Army from the rear. Johnston was forced to withdraw. Dalton was occupied by Federal troops until 1865 (Golden, 2007; Whitfield-Murray Historical Society, 1999).

In 1885, the Crown Cotton Mill opened in Dalton and provided much needed employment to the area. It was the first large manufacturing plant in Whitfield County. Other industries followed as Dalton grew. In 1900, a cottage industry that made handmade, tufted bedspreads was started by Catherine Evans Whitener. Bedspreads were sold by hanging them on clotheslines along the sides of roads. U.S. Highway 41 was known as "Peacock Alley" for the popular peacock design on the bedspreads that hung on lines by the road. By the 1930s, the labor intensive hand-tufting process of making bedspreads was replaced by machines (Golden, 2007; Whitfield-Murray Historical Society, 1999).

After World War II, the machines used to tuft bedspreads became larger and more efficient. Manufacturers began to produce rugs and carpets with these machines. As the carpet industry grew, it became the primary source of employment and economic development in the area of Murray and Whitfield Counties. Today, it is estimated that 90 percent of the functional carpet produced in the world is made within a 65-mile radius of the city of Dalton. Dalton is now known as the "Carpet Capital of the World" (Golden, 2007; Whitfield-Murray Historical Society, 1999).

The USDA Forest Service began acquiring cut-over private forest lands in Murray and Whitfield Counties in the 1930s to provide watershed protection and conservation. These lands became part of the Chattahoochee National Forest in 1936 and they continue to be managed for multiple uses, including wildlife habitat, recreation, watershed protection, wilderness, and timber. Acquisition of these lands provided forest conservation to the southern Appalachian Mountains within the Conasauga River and the Coosawattee River watersheds in Murray County. In Whitfield County, the creation of National Forest lands instituted conservation of upland ridges within the Valley and Ridge physiographic province.

Geology

William R. Fulmer, geologist, Natural Resources Conservation Service, helped prepare this section.

Murray and Whitfield Counties lie mainly within the Valley and Ridge physiographic province of northwest Georgia. Rocks in this area range from early Cambrian to Mississippian age. The east edge of Murray County extends into the Blue Ridge physiographic province and is underlain by metasedimentary and igneous rocks of pre-Cambrian, and possibly Cambrian, age. The dividing line between these two physiographic provinces is the Great Smoky Fault, which is a major thrust fault in the area that passes along the eastern edge of Murray County and generally runs parallel to the nearby U.S. Highway 411. This fault brings the metamorphic rocks of the Blue Ridge province in contact with the Paleozoic rocks of the Valley and Ridge province.

The Valley and Ridge province is dominated by northward-trending valleys separated by low, rounded ridges and by high, steep-sided ridges. Most of the valley areas have deviations ranging from 640 to 800 feet, while the ridges range from 1,000 to 1,600 feet above mean sea level. The part of Murray County in the Blue Ridge province includes mountain peaks that rise 3,000 feet or more above sea level.

Rocks of the Blue Ridge province belong to the Great Smoky group. Types of rock in this group include slate, phyllite, quartzite, graywacke, schist, and gneiss. Typical soils derived from these parent materials include Cataska, Cheoah, Edneytown,

Junaluska, Pigeonroost, and Tsali. Additional soils on the more moderate to gentle slopes include Craigsville, Shelocta, and Suches.

Parent material that formed the soils of the Valley and Ridge portion of Murray and Whitfield Counties was derived from the weathering of Paleozoic sedimentary rocks laid down between Early Cambrian and Pennsylvanian age. These geologic formations were originally flat until compressional forces from the southeast formed them into faulted folds. Erosion of the folded and faulted rocks produced a varied outcrop pattern with alternating ridges and valleys.

Taylor Ridge and Rocky Face Mountain represent prominent ridges surrounding the Chickamauga and Mill Creek Valleys of western Whitfield County. These ridges comprise the Red Mountain Formation, which consists essentially of sandstone and shale and small amounts of fossil iron ore and limestone. Soils range from shallow to very deep on the ridges and on steeper slopes, and they often have extensive gravel. Stony soils or stony surface soils, such as Tidings, Allen, Enders, Hector, Holston, Montevallo, Nauvoo, Nella, and Townley, normally occur on the landscapes.

The Rome Formation, which is of early Cambrian age, crops out on the lower elevations along the eastern edge of Taylor Ridge in Whitfield County. This formation consists almost entirely of sandstone, siltstone, and claystone. Weathering produces variable colors from red to brown to green for shaley soils from claystone and siltstone, while weathered sandstone varies from green to white. Albertville, Conasauga, Enders, Montevallo, and Townley soils are common to the ridges and lower slopes of this formation.

The Bays Formation, which is of Ordovician age, consists of red and yellow soils derived from weathered sandstone, siltstone, quartzite, and minor conglomerate. This formation occupies much of Mill Creek Valley, which is west of Dalton, underlies Hamilton Mountain, and outcrops under much of downtown Dalton. Soils common to these parent materials include Enders, Nauvoo, and Panama.

The Conasauga Formation, which is of Cambrian age, is very extensive in Murray and Whitfield Counties. It provides most of the parent materials east of Dalton in Whitfield County and most of western Murray County. The Conasauga Formation consists of alternating units of shale and limestone of varying thickness and is generally divided into three main units.

The lower unit consists of olive green, tan, and pale red sandy and silty shale that has siltstone and limestone lenses. This unit is common in southern Murray County. It occupies much of the Holly Creek drainage basin and occurs in a north to south belt east of Dalton.

The middle unit consists of light green and yellow clay shale that contains layers and lenses of limestone. This unit begins in Gordon County and extends northward through east Dalton and forms the Conasauga River Valley, which is north of the Dalton airport. Typical topography consists of shale ridges and limestone valleys.

The Maynardville Limestone is the upper unit of the Conasauga Formation. It forms the contact between the more extensive Conasauga units and the surrounding formations, such as the Knox group. Conasauga, Docena, Montevallo, and Townley soils are typical of Conasauga parent materials where limestone and shale are the dominant bedrock.

The Knox group, which is of late Cambrian and early Ordovician age, forms extensive north to south ridges in both Murray and Whitfield Counties. This formation is highly siliceous and has extensive bedded and nodular chert residue in a clay matrix. Chert fragments litter the soil surface. Soils of the Knox group include Bodine, Fullerton, Minvale, Sequatchie, and Waynesboro.

To a lesser extent, other formations crop out within these counties. These formations consist of shales, limestone, and sandstone and form the parent materials for soils similar to those identified in the more extensive outcrop areas.

Farming

Cindy Askew, district conservationist, Natural Resources Conservation Service, helped prepare this section.

When Whitfield and Murray Counties were first settled, most of the farms were diverse and self-sustaining. Farm size ranged from 600 to 4,000 acres. The nearest market for farm products was in Augusta, Georgia. Corn, wheat, and hogs were important agricultural products after the Civil War. During the 1880s, the size of farms decreased and tenant farming was common. The production of corn, wheat, and hogs declined, but the production of cotton increased. During this period, dairy and beef cattle operations became common. These operations were typically included with general farming, which continued until about 1914.

The increased production of cotton resulted in an increased hazard of erosion and a reduction of soil fertility. During the 1930s, however, farmers began to apply conservation measures, such as reforestation, cropping systems that include grasses and legumes and winter cover crops, and terraces. They also began to improve soil fertility by applying limestone and fertilizer.

Cotton production dominated the area’s agriculture from 1914 until about 1950. Since the early 1950s, much of the land has been converted to pasture or to other nonfarm uses.

The establishment of sawmills in the late 1800s led to the disappearance of nearly all of the virgin forest in the survey area and to the decision by the Federal Government to purchase much of the mountain land in Murray County and establish the Cohutta District of the Chattahoochee National Forest.

Currently, about 73,000 acres of the survey area is in farm production. The current trend in Whitfield and Murray Counties is toward smaller farms and part-time farmers. Poultry production in the area has increased steadily through the 1990s to the level of 33 million broilers per year. The dairy farms in the area have declined in number, but there are more cows per farm than in the past. Cropland and hayland make up 19,000 acres of the survey area. Corn and soybeans are the dominant field crops, but most of the corn is grown for silage. Some grain sorghum is also grown. Most of the row crop production occurs in the bottom lands near the Conasauga and Coosawattee Rivers.

Physiography, Relief, and Drainage

Most of Murray and Whitfield Counties lie in the Southern Appalachian Ridges and Valleys Major Land Resource Area (MLRA). The eastern-most part of Murray County is in the Southern Blue Ridge MLRA.

Prominent northeast- to southwest-running sandstone ridges on the western boundary and steep or very steep mountainous ridges on the eastern boundary characterize the survey area. The mountainous areas consist of large valleys dissected by less prominent ridges. Slopes range from 0 to 90 percent, but most are from 6 to 15 percent.

Grassy Mountain, located in northeastern Murray County, is the highest peak in the survey area at an elevation of 3,692 feet. Bald Mountain, also in Murray County, has an elevation of 4,005 feet, but it is located in the Cohutta Wilderness Area and was not mapped in this soil survey. Other prominent points include Fort Mountain at an elevation 2,800 feet, Rocky Face Mountain at an elevation of 1,600 feet, Dicks Ridge and Taylor Ridge at elevations of 1,400 feet, and Camp Ground Mountain at an elevation of 1,100 feet.

The lowest elevation in the survey area is 640 feet. This point occurs at the southern boundary of Murray and Whitfield Counties where the Conasauga River enters Gordon County.

The Tennessee Valley Divide, located in Whitfield County, separates the two main watersheds in the survey area. The divide runs along ridges that start in the northern part of the county near the town of Cohutta and travels southwest and enters Walker County north of the town of Villanow. Drainage west of the Tennessee Valley Divide flows north into Catoosa County and eventually empties into the Tennessee River. Drainage for the remainder of Whitfield County and all of Murray County flows south into Gordon County via the Conasauga and Coosawattee Rivers. Both sources of drainage flow south into the Gulf of Mexico.

The Conasauga River and its many tributaries provide the major avenue of drainage for the survey area. The river starts in the upper northeast section of Murray County, flows into Tennessee for a short distance, and then turns south and travels through the survey area and exits into Gordon County. The Conasauga River forms the boundary between Murray and Whitfield Counties except for a small section in the northern part of the survey area where the two counties are separated by Sugar Creek.

Major tributaries that feed into the Conasauga and Coosawattee Rivers in Murray County include Holly Creek, Mill Creek, Perry Creek, Rock Creek, Sugar Creek, Sumac Creek, and Talking Rock Creek. The main tributaries flowing into the Conasauga River from Whitfield County are Coahulla Creek, Drowning Bear Creek, Haig Mill Creek, Jobs Creek, Mill Creek, North Fork Creek, Renyon Creek, Spring Creek, Stover Creek, Sugar Creek, and Swamp Creek. Drainage for areas west of the Tennessee Valley Divide includes Chickamauga Creek, Dry Creek, Tanyard Creek, and Tiger Creek.

Industries, Utilities, and Transportation

Carpet manufacturing and related industries provide the main source of employment and income for Murray and Whitfield Counties. The carpet industry also supplies jobs for many of the surrounding counties in Georgia and Tennessee. It is estimated that approximately 90 percent of all functional carpet in the world comes from the greater Dalton area.

Other important industries for the survey area include agriculture, appliance, chemical, housing, medical, poultry, retail, recreation, and timber. Talc mining was once an important industry for Murray County. Mines were located along the base of Fort Mountain, but impurities in the talc and the expense of mining caused the mines to close.

Public utilities in Murray and Whitfield Counties include electricity, natural gas, sewage treatment, telephone service, and water. Areas not served by county sewer or water depend on septic tank absorption fields for sewage disposal and drilled wells for water.

Murray and Whitfield Counties contain an adequate network of federal, state, and local highways. Most roads are paved, except in remote areas and on National Forest land. Interstate 75, which runs north and south through Whitfield County, provides the primary source of transportation for the survey area. Additional transportation includes air, bus, and rail services.

Mines and Minerals

Many minerals are found in Murray and Whitfield Counties, but mining is not as common today as it once was. Some mines and quarries were exhausted and others were closed because it was not cost effective to keep them in operation.

The materials mined and quarried included alluvial clay deposits, manganese, shale, talc, and tripoli. While some mining operations still exist, much of the clay, minerals, and rocks in the survey area are no longer mined or quarried. As areas were mined, both the quantity and quality of the mining materials often became exhausted

over time. The economic burden also became an issue for enabling most mines and quarries to stay open. These factors forced many operations in this survey area to close.

Shale and alluvial clay deposits can be used to make bricks. Both Dalton and Chatsworth had brick-making plants. These operations utilized the alluvial clay deposits found on local flood plains.

Manganese was mined for its use in coloring and decoloring other materials. It is also used in making chemical compounds, both for industry and medicine.

Crayon talc and Blue John talc were the two types of talc that were mined in the survey area. Crayon talc, also called saw talc, was mined for the purpose of manufacturing crayons for metal workers. Crayon talc was mined in whole sections. Scrap crayon talc, which had impurities, was mixed with Blue John talc and pulverized. The pulverized talc was used in the manufacturing of products such as ceramics, cosmetics, insecticides, paint, roofing, and rubber. All of the talc mines were located on the northern, western, or southern faces of Fort Mountain and Cohutta Mountain.

Tripoli was mined for its high content of silica. Tripoli deposits were found and mined in Spring Place, and it was also found in insignificant amounts in Dalton.

Today there are still some quarries in the survey area that are operational. The materials acquired from these quarries or pits include chert, limestone, and shale. Many small chert and shale pits are in operation throughout the survey area. Chert and shale are mainly excavated for road material. Limestone is quarried for agricultural use, asphalt, concrete, construction purposes, crushed stone, railroad construction, and road material. It is still being quarried in Whitfield County.

Other materials that can be found in the county include barite, iron-ore, and gold, which are found in insignificant amounts. There are also legends passed down from American Indians and early settlers of finding and mining lead and silver.

Water Resources

Murray and Whitfield Counties possess an abundant supply of quality water. Both counties utilize surface and subsurface water sources. Each county also contains large, man-made water impoundments.

Carters Lake in Murray County was built by the Army Corps of Engineers as a supplemental water source to the water that is supplied by the Chatsworth Water Works. Carters Lake also provides electricity, flood-control, and recreation. Murray County's water primarily is supplied by Holly Creek and several springs throughout the county.

Haig Mill Reservoir in Whitfield County was built by Dalton Utilities and is relatively new. Dalton Utilities built it as a supplemental water source. Whitfield County's water supply comes from a combination of sources, including Coahulla Creek, Conasauga River, Mill Creek, and Freeman Spring.

Wells provide water in areas of both counties that are not served by a public water system. Streams and farm ponds supply most of the water for livestock.

Woodlands

The United States Department of Agriculture, Forest Service manages approximately 63,415 acres of the Chattahoochee National Forest in this survey area. Of this, 51,696 acres are in Murray County and 11,719 acres are in Whitfield County (USDA, 2007). The management of these lands is guided by a Land and Resource Management Plan that is an adaptive approach to forest management. The National Forest is used for timber, recreation, wildlife habitat, and watershed protection. Congress designated the Cohutta Wilderness Area in 1974 and allocating 5,158 acres in Murray County to this area. The focus of management of this area is to allow

ecological and biological processes to progress naturally with little or no human influence or intervention. Soils were not surveyed within the boundaries of the Cohutta Wilderness Area.

Climate

Prepared by the Natural Resources Conservation Service, National Water and Climate Center, Portland, Oregon.

Climate data are provided in the tables "Temperature and Precipitation," "Freeze Dates in Spring and Fall," and "Growing Season." The data were recorded at Dalton, Georgia, in the period 1971 to 2000.

Thunderstorm days, relative humidity, percent sunshine, and wind information are estimated from the First Order Station in Chattanooga, Tennessee.

In winter, the average temperature is 41.8 degrees F and the average daily minimum temperature is 31.5 degrees. The lowest temperature on record, which occurred on January 21, 1985, is -10 degrees. In summer, the average temperature is 77.1 degrees and the average daily maximum temperature is 87.9 degrees. The highest recorded temperature, which occurred on June 27, 1988, is 103 degrees.

Growing degree days are shown in the table "Temperature and Precipitation." They are equivalent to "heat units." During the month, growing degree days accumulate by the amount that the average temperature each day exceeds a base temperature (50 degrees F). The normal monthly accumulation is used to schedule single or successive plantings of a crop between the last freeze in spring and the first freeze in fall.

The total annual precipitation is about 56.4 inches. Of this, 29.8 inches, or 53 percent, usually falls in April through October. The growing season for most crops falls within this period. The heaviest 1-day rainfall during the period of record was 10.4 inches on September 24, 1975. Thunderstorms occur on about 56 days each year, and most occur in July.

The average seasonal snowfall is about 2.2 inches. The greatest snow depth at any one time was 18 inches on March 15, 1993. On the average, no days during the year have at least 1 inch of snow on the ground.

The average relative humidity in midafternoon is about 57 percent. Humidity is higher at night, and the average at dawn is about 87 percent. The sun shines 64 percent of the time possible in summer and 44 percent in winter. The prevailing wind is from the south. Average windspeed is highest, around 6.6 miles per hour, in March.

How This Survey Was Made

This survey was made to provide information about the soils and miscellaneous areas in the survey area. The information includes a description of the soils and miscellaneous areas and their location and a discussion of their suitability, limitations, and management for specified uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They dug many holes to study the soil profile, which is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in the survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

The descriptions, names, and delineations of the soils in this survey area do not fully agree with those of the soils in adjacent survey areas. Differences are the result of a better knowledge of soils, modifications in series concepts, or variations in the intensity of mapping or in the extent of the soils in the survey areas.

About 3,820 acres of the Chattahoochee National Forest in Murray County is not included in this soil survey. The unmapped section is part of the Cohutta Wilderness Area and was not surveyed in order to preserve its wilderness state. The area is outlined and identified on soil survey sheets.

General Soil Map Units

The general soil maps in this publication shows broad areas that have a distinctive pattern of soils, relief, and drainage. Each map unit on the general soil maps is a unique natural landscape. Typically, it consists of one or more major soils or miscellaneous areas and some minor soils or miscellaneous areas. It is named for the major soils or miscellaneous areas. The components of one map unit can occur in another but in a different pattern.

The general soil maps can be used to compare the suitability of large areas for general land uses. Areas of suitable soils can be identified on the maps. Likewise, areas where the soils are not suitable can be identified.

Because of their small scale, the maps are not suitable for planning the management of a farm or field or for selecting a site for a road or building or other structure. The soils in any one map unit differ from place to place in slope, depth, drainage, and other characteristics that affect management.

Soil names and boundaries on the general soil maps do not always match those of adjacent counties. Differences are the result of variations in soil patterns over the survey area and recent improvements in soil classification, particularly soil series concepts.

Soils in Murray County

1. Townley-Conasauga-Montevallo

Gently sloping to moderately steep, well drained or moderately well drained, moderately deep or shallow soils that have a clayey or loamy subsoil and formed in residuum from acid shale

Setting

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Low hills and ridges
Slope range: 2 to 30 percent

Composition

Percent of Murray County: 12 percent
Townley soils: 30 percent
Conasauga soils: 15 percent
Montevallo soils: 15 percent
Minor components: 40 percent

Soil Properties and Qualities

Townley
Slope range: Gently sloping to moderately steep
Drainage class: Well drained
Depth class: Moderately deep

Conasauga
Slope range: Gently sloping or strongly sloping
Drainage class: Moderately well drained
Depth class: Moderately deep

Montevallo
Slope range: Gently sloping to moderately steep
Drainage class: Well drained
Depth class: Shallow

Use and Management

Major uses: Pasture, hayland, woodland, and urban development
Management concerns: Depth to bedrock, erosion hazard, shrink-swell potential, slope, and slow water movement

2. Montevallo-Townley

Strongly sloping to very steep, well drained, shallow or moderately deep soils that have a loamy or clayey subsoil and formed in residuum from acid shale

Setting

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Hills and ridges
Slope range: 6 to 60 percent

Composition

Percent of Murray County: 25 percent
Montevallo soils: 50 percent
Townley soils: 30 percent
Minor components: 20 percent

Soil Properties and Qualities

Montevallo
Slope range: Strongly sloping to very steep
Drainage class: Well drained
Depth class: Shallow

Townley
Slope range: Strongly sloping or moderately steep
Drainage class: Well drained
Depth class: Moderately deep

Use and Management

Major uses: Woodland and pasture
Management concerns: Depth to bedrock, low available water capacity, erosion hazard, slope, slow water movement, and gravel content

3. Fullerton-Shack-Minvale

Gently sloping to moderately steep, well drained or moderately well drained, moderately deep to very deep soils that have a loamy or clayey subsoil and formed in residuum and colluvium from cherty limestone

Setting

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Hills and ridges
Slope range: 2 to 30 percent

Composition

Percent of Murray County: 5 percent
Fullerton soils: 30 percent
Shack soils: 20 percent
Minvale soils: 15 percent
Minor components: 35 percent

Soil Properties and Qualities

Fullerton
Slope range: Gently sloping to moderately steep
Drainage class: Well drained
Depth class: Very deep

Shack
Slope range: Gently sloping to moderately steep
Drainage class: Moderately well drained
Depth class: Very deep

Minvale
Slope range: Gently sloping to moderately steep
Drainage class: Well drained
Depth class: Very deep

Use and Management

Major uses: Pasture, hayland, and woodland
Management concerns: Erosion hazard, perched water tables, slope, slow water movement, and gravel content

4. Waynesboro-Holston-Dewey

Gently sloping or strongly sloping, well drained, very deep soils that have a loamy or clayey subsoil and formed in alluvium, colluvium, and residuum from acid shale, cherty limestone, limestone, and sandstone

Setting

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Low hills and stream terraces
Slope range: 2 to 15 percent

Composition

Percent of Murray County: 10 percent
Waynesboro soils: 45 percent
Holston soils: 10 percent
Dewey soils: 10 percent
Minor components: 35 percent

Soil Properties and Qualities

Waynesboro
Slope range: Gently sloping or strongly sloping

Drainage class: Well drained
Depth class: Very deep

Holston
Slope range: Gently sloping or strongly sloping
Drainage class: Well drained
Depth class: Very deep

Dewey
Slope range: Gently sloping or strongly sloping
Drainage class: Well drained
Depth class: Very deep

Use and Management

Major uses: Pasture, hayland, urban development, and cropland
Management concerns: Erosion hazard, slope, slow water movement, and gravel content

5. Chenneby-Shellbluff-Arkabutla

Nearly level, somewhat poorly drained to well drained, very deep soils that have a loamy subsoil and formed in mixed alluvium

Setting

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Flood plains
Slope range: 0 to 2 percent

Composition

Percent of Murray County: 10 percent
Chenneby soils: 20 percent
Shellbluff soils: 20 percent
Arkabutla soils: 15 percent
Minor components: 45 percent

Soil Properties and Qualities

Chenneby
Slope range: Nearly level
Drainage class: Somewhat poorly drained
Depth class: Very deep

Shellbluff
Slope range: Nearly level
Drainage class: Well drained
Depth class: Very deep

Arkabutla
Slope range: Nearly level
Drainage class: Somewhat poorly drained
Depth class: Very deep

Use and Management

Major uses: Cropland, pasture, hayland, and woodland
Management concerns: Flooding and wetness

6. Junaluska-Tsali-Cataska

Gently sloping to very steep, well drained, shallow or moderately deep soils that have a loamy subsoil and formed in colluvium and residuum from metasedimentary rock

Setting

Major land resource area: Southern Blue Ridge
Landform: Mountains
Slope range: 5 to 70 percent

Composition

Percent of Murray County: 37 percent
Tsali soils: 40 percent
Junaluska soils: 20 percent
Cataska soils: 20 percent
Minor components: 20 percent

Soil Properties and Qualities

Junaluska
Slope range: Gently sloping to very steep
Drainage class: Well drained
Depth class: Moderately deep

Tsali
Slope range: Gently sloping to very steep
Drainage class: Well drained
Depth class: Shallow

Cataska
Slope range: Gently sloping to very steep
Drainage class: Well drained
Depth class: Shallow

Use and Management

Major uses: Woodland and pasture
Management concerns: Depth to bedrock, low available water capacity, erosion hazard, and slope

7. Nauvoo-Townley-Allen

Gently sloping to moderately steep, well drained, moderately deep to very deep soils that have a loamy or clayey subsoil and formed in colluvium and residuum from sandstone and acid shale

Setting

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Ridges
Slope range: 2 to 30 percent

Composition

Percent of Murray County: 1 percent
Nauvoo soils: 50 percent
Townley soils: 10 percent
Allen soils: 10 percent
Minor components: 30 percent

Soil Properties and Qualities

Nauvoo
Slope range: Strongly sloping or moderately steep
Drainage class: Well drained
Depth class: Deep

Townley
Slope range: Gently sloping to moderately steep
Drainage class: Well drained
Depth class: Moderately deep
Position on landscape: Gently sloping to moderately steep ridges and side slopes

Allen
Slope range: Gently sloping or strongly sloping
Drainage class: Well drained
Depth class: Very deep
Position on landscape: Gently sloping or strongly sloping ridges and side slopes

Use and Management

Major uses: Woodland and pasture
Management concerns: Depth to bedrock, low available water capacity, erosion hazard, slope, slow water movement, and gravel content

Soils in Whitfield County

1. Townley-Conasauga

Gently sloping to moderately steep, moderately well drained or well drained, moderately deep soils that have a clayey subsoil and formed in residuum from acid shale

Setting

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Low hills and ridges
Slope range: 2 to 30 percent

Composition

Percent of Whitfield County: 26 percent
Townley soils: 30 percent
Conasauga soils: 20 percent
Minor components: 50 percent

Soil Properties and Qualities

Townley
Slope range: Gently sloping to moderately steep
Drainage class: Well drained
Depth class: Moderately deep

Conasauga
Slope range: Gently sloping or strongly sloping
Drainage class: Moderately well drained
Depth class: Moderately deep

Use and Management

Major uses: Pasture, hayland, woodland, and urban development
Management concerns: Depth to bedrock, erosion hazard, shrink-swell potential, slope, and slow water movement

2. Montevallo-Townley

Strongly sloping to very steep, well drained, shallow or moderately deep soils that a have loamy or clayey subsoil and formed in residuum from acid shale

Setting

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Ridges
Slope range: 6 to 60 percent slopes

Composition

Percent of Whitfield County: 16 percent
Montevallo soils: 65 percent
Townley soils: 15 percent
Minor components: 20 percent

Soil Properties and Qualities

Montevallo
Slope range: Strongly sloping to very steep
Drainage class: Well drained
Depth class: Shallow

Townley
Slope range: Strongly sloping to steep
Drainage class: Well drained
Depth class: Moderately deep

Use and Management

Major uses: Woodland and pasture
Management concerns: Depth to bedrock, low available water capacity, erosion hazard, slope, slow water movement, and gravel content

3. Shack-Bodine-Minvale-Fullerton

Gently sloping to very steep, moderately well drained or well drained, moderately deep to very deep soils that have a loamy or clayey subsoil and formed in colluvium and residuum from cherty limestone

Setting

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Hills and ridges
Slope range: 2 to 60 percent slopes

Composition

Percent of Whitfield County: 30 percent
Shack soils: 30 percent
Bodine soils: 20 percent
Minvale soils: 20 percent

Fullerton soils: 15 percent
Minor components: 15 percent

Soil Properties and Qualities

Shack
Slope range: Gently sloping to moderately steep
Drainage class: Moderately well drained
Depth class: Very deep

Bodine
Slope range: Strongly sloping to very steep
Drainage class: Somewhat excessively drained
Depth class: Very deep

Minvale
Slope range: Gently sloping to moderately steep
Drainage class: Well drained
Depth class: Very deep

Fullerton
Slope range: Gently sloping to moderately steep
Drainage class: Well drained
Depth class: Very deep

Use and Management

Major uses: Pasture, hayland, and woodland
Management concerns: Erosion hazard, perched water tables, slope, slow water movement, and gravel content

4. Townley-Nella

Gently sloping to very steep, well drained, moderately deep to very deep soils that have a loamy or clayey subsoil and formed in colluvium and residuum from sandstone and acid shale

Setting

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Hills and ridges
Slope range: 2 to 60 percent slopes

Composition

Percent of Whitfield County: 14 percent
Townley soils: 20 percent
Nella and similar soils: 20 percent
Minor components: 60 percent

Soil Properties and Qualities

Townley
Slope range: Gently sloping to steep
Drainage class: Well drained
Depth class: Moderately deep

Nella
Slope range: Gently sloping to very steep
Drainage class: Well drained
Depth class: Very deep

Use and Management

Major uses: Woodland and pasture
Management concerns: Slope, erosion hazard, slow water movement, and gravel content

5. Chenneby-Shellbluff-Arkabutla

Nearly level, well drained to somewhat poorly drained, very deep soils that have a loamy subsoil and formed in mixed alluvium

Setting

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Flood plains
Slope range: 0 to 2 percent slopes

Composition

Percent of Whitfield County: 4 percent
Chenneby soils: 20 percent
Shellbluff soils: 15 percent
Arkabutla soils: 15 percent
Minor components: 50 percent

Soil Properties and Qualities

Chenneby
Slope range: Nearly level
Drainage class: Somewhat poorly drained
Depth class: Very deep

Shellbluff
Slope range: Nearly level
Drainage class: Well drained
Depth class: Very deep

Arkabutla
Slope range: Nearly level
Drainage class: Somewhat poorly drained
Depth class: Very deep

Use and Management

Major uses: Cropland, pasture, hayland, and woodland
Management concerns: Flooding, erosion hazard, and wetness

6. Bodine-Nella-Townley

Gently sloping to very steep, well drained, moderately deep to very deep soils that have a loamy or clayey subsoil and formed in colluvium and residuum from cherty limestone, shale, and sandstone

Setting

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Ridges
Slope range: 2 to 60 percent slopes

Composition

Percent of Whitfield County: 2 percent
  Bodine soils: 40 percent
  Nella soils: 15 percent
  Townley soils: 15 percent
  Minor components: 30 percent

Soil Properties and Qualities

Bodine
Slope range: Strongly sloping to very steep
Drainage class: Somewhat excessively drained
Depth class: Very deep

Nella
Slope range: Gently sloping to very steep
Drainage class: Well drained
Depth class: Very deep

Townley
Slope range: Gently sloping to steep
Drainage class: Well drained
Depth class: Moderately deep

Use and Management

Major uses: Woodland, pasture, and hayland
Management concerns: Slope, erosion hazard, slow water movement, and gravel content

7. Fullerton-Hanceville

Gently sloping to moderately steep, well drained, very deep soils that have a clayey subsoil and formed in alluvium, colluvium, and residuum from acid shale, cherty limestone, limestone, and sandstone

Setting

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Hills and ridges
Slope range: 2 to 30 percent slopes

Composition

Percent of Whitfield County: 3 percent
  Fullerton soils: 30 percent
  Hanceville soils: 20 percent
  Minor components: 50 percent

Soil Properties and Qualities

Fullerton
Slope range: Gently sloping to moderately steep
Drainage class: Well drained
Depth class: Very deep

Hanceville
Slope range: Gently sloping or strongly sloping
Drainage class: Well drained
Depth class: Very deep

Use and Management

Major uses: Pasture, hayland, and woodland
Management concerns: Erosion hazard, slope, slow water movement, and gravel content

8. Panama-Enders

Strongly sloping to very steep, well drained, very deep or deep soils that have a loamy or clayey subsoil and formed in residuum from acid shale and sandstone

Setting

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Ridges
Slope range: 6 to 60 percent slopes

Composition

Percent of Whitfield County: 5 percent
Panama soils: 25 percent
Enders soils: 25 percent
Minor components: 50 percent

Soil Properties and Qualities

Panama
Slope range: Moderately steep to very steep
Drainage class: Well drained
Depth class: Very deep

Enders
Slope range: Strongly sloping to very steep
Drainage class: Well drained
Depth class: Deep

Use and Management

Major uses: Woodland, pasture, and hayland
Management concerns: Erosion hazard, slope, and gravel content

Detailed Soil Map Units

The map units delineated on the detailed soil maps in this survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this section, along with the maps, can be used to determine the suitability and potential of a unit for specific uses. They also can be used to plan the management needed for those uses. A soil is considered well suited to a specific use if it has properties that are favorable to the use, moderately suited if it has properties that require special planning and management to obtain satisfactory performance, and poorly suited if it has properties that are unfavorable to the use. A soil is considered not suited if it has properties that are so unfavorable that they are impractical to overcome. More information about suitability for specific uses is given in the section “Use and Management of the Soils,” and the suitability ratings are explained in the Glossary.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. The contrasting components are mentioned in the map unit descriptions. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives the principal hazards and limitations to be considered in planning for specific uses.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Fullerton gravelly silt loam, 6 to 15 percent slopes, is a phase of the Fullerton series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes. A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Shack-Minvale-Bodine complex, 15 to 30 percent slopes, is an example.

This survey includes *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Urban land, 2 to 10 percent slopes, is an example.

The table "Acreage and Proportionate Extent of the Soils" lists the map units in this survey area. Other tables give properties of the soils and the limitations, capabilities, and potentials for many uses. The Glossary defines many of the terms used in describing the soils.

AbB—Albertville silt loam, 2 to 6 percent slopes

Setting

Landform: Hills
Landform position: Footslopes
Flooding: None
Slope: Gently sloping

Typical Profile

Surface layer:
0 to 6 inches—yellowish brown silt loam

Subsoil:
6 to 9 inches—brownish yellow silty clay loam that has pale yellow mottles
9 to 24 inches—brownish yellow silty clay that has red and pale yellow mottles
24 to 35 inches—brownish yellow silty clay that has red and strong brown mottles
35 to 47 inches—brownish yellow silty clay that has red, very pale brown, and strong brown mottles

Underlying material:
47 to 60 inches—multicolored, rippable shale bedrock

Soil Properties and Qualities

Drainage class: Moderately well drained
Seasonal high water table: Apparent; at a depth of 2.5 to 3.5 feet
Permeability: Moderately slow
Available water capacity: Moderate
Root zone: Deep

Minor Components

- Conasauga and Docena soils, which are in similar landform positions
- Cunningham and Townley soils, which are in the higher landform positions

- Soils that are deeper than 60 inches to shale bedrock

Use and Management

Land use: Pasture, woodland, and cropland

Cropland, hayland, and pasture
Suitability to field crops: Well suited
Suitability to hay: Well suited
Suitability to pasture: Well suited
Management concerns: Hazard of erosion

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and shortleaf pine
Management concerns: Erodibility, low strength, stickiness, high plasticity index, and content of rock fragments

Urban development
Suitability: Moderately suited
Limitations: Depth to bedrock, shrink-swell potential, slow water movement, and low strength

Recreational development
Suitability: Moderately suited
Limitations: Slow water movement and slope

Interpretive Group

Land capability classification: 2E

AbD—Albertville silt loam, 6 to 15 percent slopes

Setting

Landform: Low hills
Landform position: Summits and backslopes
Flooding: None
Slope: Strongly sloping

Typical Profile

Surface layer:
0 to 6 inches—yellowish brown silt loam

Subsoil:
6 to 9 inches—brownish yellow silty clay loam that has pale yellow mottles
9 to 24 inches—brownish yellow silty clay that has red and pale yellow mottles
24 to 35 inches—brownish yellow silty clay that has red and strong brown mottles
35 to 47 inches—brownish yellow silty clay that has red, very pale brown, and strong brown mottles

Underlying material:
47 to 60 inches—multicolored, rippable shale bedrock

Soil Properties and Qualities

Drainage class: Moderately well drained
Seasonal high water table: Apparent; at a depth of 2.5 to 3.5 feet
Permeability: Moderately slow

Available water capacity: Moderate
Root zone: Deep

Minor Components

- Enders, Montevallo, and Townley soils, which are in similar landform positions
- Conasauga and Docena soils, in the slightly lower landform positions
- Soils that are deeper than 60 inches to shale bedrock
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Pasture, woodland, and cropland

Cropland, hayland, and pasture
Suitability to field crops: Poorly suited
Suitability to hay: Moderately suited
Suitability to pasture: Moderately suited
Management concerns: Hazard of erosion

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and shortleaf pine
Management concerns: Erodibility, slope, low strength, stickiness, high plasticity index, and content of rock fragments

Urban development
Suitability: Moderately suited
Limitations: Slope, depth to bedrock, slow water movement, low strength, and shrink-swell potential

Recreational development
Suitability: Moderately suited
Limitations: Slow water movement and slope

Interpretive Group

Land capability classification: 4E

AnB—Allen loam, 2 to 6 percent slopes

Setting

Landform: Hills
Landform position: Footslopes
Flooding: None
Slope: Gently sloping

Typical Profile

Surface layer:
0 to 5 inches—brown loam

Subsoil:
5 to 14 inches—yellowish red clay loam
14 to 51 inches—red clay loam
51 to 60 inches—red clay

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet

Permeability: Moderate
Available water capacity: Moderate
Root zone: Very deep

Minor Components

- Enders, Holston, Nauvoo, Nella, and Sipsey soils, which are in similar landform positions
- Townley soils, which are in the higher landform positions

Use and Management

Land use: Pasture, woodland, and hayland

Cropland, hayland, and pasture
Suitability to field crops: Well suited
Suitability to hay: Well suited
Suitability to pasture: Well suited
Management concerns: Hazard of erosion

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine, shortleaf pine, and yellow-poplar
Management concerns: Erodibility, slope, and low strength

Urban development
Suitability: Well suited
Limitations: Low strength and slow water movement

Recreational development
Suitability: Well suited
Limitations: Slope and content of gravel

Interpretive Group

Land capability classification: 2E

AnD—Allen loam, 6 to 15 percent slopes

Setting

Landform: Hills, ridges, and high stream terraces
Landform position: Footslopes of hills and ridges
Flooding: None
Slope: Strongly sloping

Typical Profile

Surface layer:
0 to 5 inches—brown loam

Subsoil:
5 to 14 inches—yellowish red clay loam
14 to 51 inches—red clay loam
51 to 60 inches—red clay

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate

Available water capacity: Moderate
Root zone: Very deep

Minor Components

- Enders, Holston, Nella, and Sipsey soils, which are in similar landform positions
- Townley soils, which are in the higher landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Woodland and pasture

Cropland, hayland, and pasture
Suitability to field crops: Poorly suited
Suitability to hay: Moderately suited
Suitability to pasture: Moderately suited
Management concerns: Hazard of erosion

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine, shortleaf pine, and yellow-poplar
Management concerns: Erodibility, slope, and low strength

Urban development
Suitability: Moderately suited
Limitations: Slope, slow water movement, and low strength

Recreational development
Suitability: Moderately suited
Limitations: Slope and content of gravel

Interpretive Group

Land capability classification: 4E

AnE—Allen loam, 15 to 30 percent slopes

Setting

Landform: Hills and ridges
Landform position: Backslopes and footslopes
Flooding: None
Slope: Moderately steep

Typical Profile

Surface layer:
0 to 5 inches—brown loam

Subsoil:
5 to 14 inches—yellowish red clay loam
14 to 51 inches—red clay loam
51 to 60 inches—red clay

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate

Available water capacity: Moderate
Root zone: Very deep

Minor Components

- Enders, Nella, Panama, and Sipsey soils, which are in similar landform positions
- Townley soils, which are in the higher landform positions
- Soils that are shallow to sandstone bedrock
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Woodland

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Unsuited
Suitability to pasture: Poorly suited
Management concerns: Hazard of erosion

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and shortleaf pine
Management concerns: Erodibility, slope, low strength, and low available water capacity

Urban development
Suitability: Poorly suited
Limitations: Slope, slow water movement, and low strength

Recreational development
Suitability: Poorly suited
Limitations: Slope and content of gravel

Interpretive Group

Land capability classification: 6E

ArC—Allen-Urban land complex, 2 to 15 percent slopes

Setting

Landform: Hills and ridges in urban areas
Landform position: Backslopes and footslopes
Flooding: None
Slope: Gently sloping or strongly sloping

Composition

Allen soils—about 60 percent
Urban land—about 40 percent

Typical Profile

Allen
Surface layer:
0 to 5 inches—brown loam

Subsoil:
5 to 14 inches—yellowish red clay loam

14 to 51 inches—red clay loam
51 to 60 inches—red clay

Urban land
Urban land consists of areas that have been altered by cutting, filling, and shaping. Schools, parking lots, streets, commercial buildings, residential dwellings, or other structures are located in these areas.

Soil Properties and Qualities

Drainage class: Allen—well drained
Seasonal high water table: Allen—more than 6.0 feet
Permeability: Allen—moderate
Available water capacity: Allen—moderate
Root zone: Allen—very deep

Minor Components

- Cunningham, Nauvoo, Nella, Panama, and Sipsey soils, which are in similar landform positions
- Townley soils, which are in the higher landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Allen—lawns, gardens, and idle acres; Urban land—buildings, streets, parking lots, sidewalks, and other structures

Urban development
Suitability: Moderately suited
Limitations: Slope, slow water movement, and low strength

Recreational development
Suitability: Moderately suited
Limitations: Slope and content of gravel

Interpretive Group

Land capability classification: Allen—3E; Urban land—none assigned

ArE—Allen-Urban land complex, 15 to 30 percent slopes

Setting

Landform: Hills and ridges in urban areas
Landform position: Backslopes and footslopes
Flooding: None
Slope: Moderately steep

Composition

Allen soils—about 60 percent
Urban land—about 40 percent

Typical Profile

Allen
Surface layer:
0 to 5 inches—brown loam

Subsoil:
5 to 14 inches—yellowish red clay loam
14 to 51 inches—red clay loam
51 to 60 inches—red clay

Urban land

Urban land consists of areas that have been altered by cutting, filling, and shaping. Schools, parking lots, streets, commercial buildings, residential dwellings, or other structures are located in these areas.

Soil Properties and Qualities

Drainage class: Allen—well drained
Seasonal high water table: Allen—more than 6.0 feet
Permeability: Allen—moderate
Available water capacity: Allen—moderate
Root zone: Allen—very deep

Minor Components

- Cunningham, Nauvoo, Nella, Panama, and Sipsey soils, which are in similar landform positions
- Townley soils, which are in the higher landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Allen—lawns, gardens, and idle acres; Urban land—buildings, streets, parking lots, sidewalks, and other structures

Urban development
Suitability: Poorly suited
Limitations: Slope, slow water movement, and low strength

Recreational development
Suitability: Poorly suited
Limitations: Slope and content of gravel

Interpretive Group

Land capability classification: Allen—6E; Urban land—none assigned

AuA—Arkabutla silt loam, 0 to 2 percent slopes, occasionally flooded

Setting

Landform: Flood plains
Flooding: Occasional
Slope: Nearly level

Typical Profile

Surface layer:
0 to 6 inches—brown silt loam

Subsurface layer:
6 to 13 inches—brown silt loam that has grayish brown mottles

Subsoil:
13 to 18 inches—brown silt loam that has grayish brown and dark yellowish brown mottles
18 to 21 inches—grayish brown silty clay loam that has pale brown and yellowish brown mottles
21 to 31 inches—grayish brown silty clay loam that has light yellowish brown and strong brown mottles
31 to 63 inches—gray silty clay loam that has yellowish brown and light yellowish brown mottles

Soil Properties and Qualities

Drainage class: Somewhat poorly drained
Seasonal high water table: Apparent; at a depth of 1.0 foot to 1.5 feet
Permeability: Moderate
Available water capacity: High
Root zone: Very deep

Minor Components

- Shellbluff and Chenneby soils, which are in the slightly higher landform positions
- Ketona soils, which are in the slightly lower landform positions
- Soils that have gravel layers at a depth of less than 60 inches

Use and Management

Land use: Cropland, woodland, hayland, and pasture

Cropland, hayland, and pasture
Suitability to field crops: Moderately suited
Suitability to hay: Moderately suited
Suitability to pasture: Moderately suited
Management concerns: Flooding and wetness

Woodland
Potential productivity: High
Preferred trees to plant: Loblolly pine, American sycamore, cherrybark oak, eastern cottonwood, green ash, and sweetgum
Management concerns: Flooding, low strength, and wetness

Urban development
Suitability: Poorly suited
Limitations: Flooding, depth to saturated zone, low strength, and slow water movement

Recreational development
Suitability: Poorly suited
Limitations: Flooding and depth to saturated zone

Interpretive Group

Land capability classification: 2W

BoD—Bodine very gravelly silt loam, 6 to 15 percent slopes

Setting

Landform: Hills and ridges
Landform position: Summits and backslopes

Flooding: None
Slope: Strongly sloping

Typical Profile

Surface layer:
0 to 4 inches—pale brown very gravelly silt loam

Subsurface layer:
4 to 16 inches—light yellowish brown very gravelly silt loam

Subsoil:
16 to 26 inches—light brown extremely gravelly silty clay loam
26 to 60 inches—reddish yellow extremely gravelly clay loam that has very pale brown and yellowish red mottles

Soil Properties and Qualities

Drainage class: Somewhat excessively drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderately rapid
Available water capacity: Low
Root zone: Very deep

Minor Components

- Fullerton, Holston, Minvale, Nella, and Shack soils, which are in similar landform positions
- Wax soils, which are in the lower landform positions and in drainageways

Use and Management

Land use: Woodland and pasture

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Poorly suited
Suitability to pasture: Poorly suited
Management concerns: Hazard of erosion, low available water capacity, and content of gravel and large stones

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and shortleaf pine
Management concerns: Slope, erodibility, and content of rock fragments

Urban development
Suitability: Moderately suited
Limitations: Slope and seepage

Recreational development
Suitability: Poorly suited
Limitations: Content of gravel and large stones and slope

Interpretive Group

Land capability classification: 6S

BoE—Bodine very gravelly silt loam, 15 to 30 percent slopes

Setting

Landform: Hills and ridges
Landform position: Summits and backslopes
Flooding: None
Slope: Moderately steep

Typical Profile

Surface layer:
0 to 4 inches—pale brown very gravelly silt loam

Subsurface:
4 to 16 inches—light yellowish brown very gravelly silt loam

Subsoil:
16 to 26 inches—light brown extremely gravelly silty clay loam
26 to 60 inches—reddish yellow extremely gravelly clay loam that has very pale brown and yellowish red mottles

Soil Properties and Qualities

Drainage class: Somewhat excessively drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderately rapid
Available water capacity: Low
Root zone: Very deep

Minor Components

- Fullerton, Holston, Minvale, Nella, and Shack soils, which are in similar landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Woodland and pasture

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Unsuited
Suitability to pasture: Poorly suited
Management concerns: Hazard of erosion, low available water capacity, and content of gravel and large stones

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and shortleaf pine
Management concerns: Slope, erodibility, content of rock fragments, and low available water capacity

Urban development
Suitability: Poorly suited
Limitations: Slope and seepage

Recreational development
Suitability: Poorly suited
Limitations: Content of gravel and large stones and slope

Interpretive Group

Land capability classification: 7S

BoF—Bodine very gravelly silt loam, 30 to 60 percent slopes

Setting

Landform: Hills and ridges
Landform position: Summits and backslopes
Flooding: None
Slope: Steep to very steep

Typical Profile

Surface layer:
0 to 4 inches—pale brown very gravelly silt loam

Subsurface layer:
4 to 16 inches—light yellowish brown very gravelly silt loam

Subsoil:
16 to 26 inches—light brown extremely gravelly silty clay loam
26 to 60 inches—reddish yellow extremely gravelly clay loam that has very pale brown and yellowish red mottles

Soil Properties and Qualities

Drainage class: Somewhat excessively drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderately rapid
Available water capacity: Low
Root zone: Very deep

Minor Components

- Fullerton, Minvale, Nella, and Shack soils, which are in similar landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Woodland

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Unsuited
Suitability to pasture: Unsuited
Management concerns: Hazard of erosion, low available water capacity, and content of gravel and large stones

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and shortleaf pine
Management concerns: Slope, erodibility, content of rock fragments, and low available water capacity

Urban development
Suitability: Poorly suited
Limitations: Slope and seepage

Recreational development
Suitability: Poorly suited
Limitations: Content of gravel and large stones and slope

Interpretive Group

Land capability classification: 7S

CaA—Capshaw silt loam, 0 to 2 percent slopes

Setting

Landform: Stream terraces, depressions, and broad upland flats
Surface features: Outcropping of limestone near drainage areas
Flooding: None
Slope: Nearly level

Typical Profile

Surface layer:
0 to 7 inches—brown silt loam

Subsoil:
7 to 14 inches—brownish yellow silty clay loam that has very pale brown mottles
14 to 22 inches—brownish yellow silty clay that has light yellowish brown mottles
22 to 55 inches—brownish yellow clay that has light gray, strong brown, reddish yellow, and light yellowish brown mottles

Underlying material:
55 inches—hard limestone bedrock

Soil Properties and Qualities

Drainage class: Moderately well drained
Seasonal high water table: Apparent; at a depth of 2.0 to 3.5 feet
Permeability: Slow
Available water capacity: Moderate or high
Root zone: Deep or very deep

Minor Components

- Conasauga, Docena, and Whitwell soils, which are in the slightly higher landform positions
- Chenneby, Guthrie, and Ketona soils, which are adjacent to the major soil on flood plains, in drainageways, and in depressions

Use and Management

Land use: Pasture, woodland, hayland, and cropland

Cropland, hayland, and pasture
Suitability to field crops: Well suited
Suitability to hay: Well suited
Suitability to pasture: Well suited
Management concerns: Wetness

Woodland
Potential productivity: High
Preferred trees to plant: Loblolly pine, shortleaf pine, and yellow-poplar
Management concerns: Low strength, stickiness, and high plasticity index

Urban development
Suitability: Poorly suited
Limitations: Depth to bedrock, depth to saturated zone, shrink-swell potential, low strength, and slow water movement

Recreational development
Suitability: Moderately suited
Limitations: Slow water movement

Interpretive Group

Land capability classification: 2W

CaB—Capshaw silt loam, 2 to 6 percent slopes

Setting

Landform: Stream terraces and broad upland flats
Surface features: Outcropping of limestone near drainage areas
Flooding: None
Slope: Gently sloping

Typical Profile

Surface layer:
0 to 7 inches—brown silt loam

Subsoil:
7 to 14 inches—brownish yellow silty clay loam that has very pale brown mottles
14 to 22 inches—brownish yellow silty clay that has light yellowish brown mottles
22 to 55 inches—brownish yellow clay that has light gray, strong brown, reddish yellow, and light yellowish brown mottles

Underlying material:
55 inches—hard limestone bedrock

Soil Properties and Qualities

Drainage class: Moderately well drained
Seasonal high water table: Apparent; at a depth of 2.0 to 3.5 feet
Permeability: Slow
Available water capacity: Moderate or high
Root zone: Deep or very deep

Minor Components

- Conasauga, Docena, and Whitwell soils, which are in similar landform positions
- Chenneby, Guthrie, and Ketona soils, which are adjacent to the major soil on flood plains, in drainageways, and in depressions

Use and Management

Land use: Pasture, woodland, hayland, and cropland

Cropland, hayland, and pasture
Suitability to field crops: Well suited
Suitability to hay: Well suited
Suitability to pasture: Well suited
Management concerns: Hazard of erosion

Woodland
Potential productivity: High
Preferred trees to plant: Loblolly pine, shortleaf pine, and yellow-poplar
Management concerns: Slope, erodibility, low strength, stickiness, and high plasticity index

Urban development
Suitability: Poorly suited
Limitations: Depth to bedrock, depth to saturated zone, shrink-swell potential, low strength, and slow water movement

Recreational development
Suitability: Moderately suited
Limitations: Slow water movement and slope

Interpretive Group

Land capability classification: 2E

CkE—Cataska channery silt loam, 5 to 25 percent slopes

Setting

Landform: Mountains
Landform position: Summits and backslopes
Surface features: Outcropping of metasedimentary bedrock
Flooding: None
Slope: Gently sloping to moderately steep

Typical Profile

Surface layer:
0 to 2 inches—very dark grayish brown channery silt loam

Subsoil:
2 to 16 inches—yellowish brown very channery silt loam

Underlying material:
16 to 27 inches—grayish, rippable phyllite
27 inches—hard, grayish, fractured phyllite

Soil Properties and Qualities

Drainage class: Excessively drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderately rapid
Available water capacity: Very low
Root zone: Shallow

Minor Components

- Junaluska, Lily, and Tsali soils, which are in similar landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Woodland and pasture

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Unsuited
Suitability to pasture: Poorly suited

Management concerns: Depth to bedrock, erosion hazard, and low available water capacity

Woodland
Potential productivity: Low
Preferred trees to plant: Virginia pine
Management concerns: Slope, erodibility, and content of rock fragments

Urban development
Suitability: Poorly suited
Limitations: Depth to bedrock, slope, and seepage

Recreational development
Suitability: Poorly suited
Limitations: Depth to bedrock, content of gravel and large stones, and slope

Interpretive Group

Land capability classification: 7S

CkF—Cataska channery silt loam, 25 to 45 percent slopes

Setting

Landform: Mountains
Landform position: Summits and backslopes
Surface features: Outcropping of metasedimentary bedrock
Flooding: None
Slope: Moderately steep or steep

Typical Profile

Surface layer:
0 to 2 inches—very dark grayish brown channery silt loam

Subsoil:
2 to 16 inches—yellowish brown very channery silt loam

Underlying material:
16 to 27 inches—grayish, rippable phyllite
27 inches—hard, grayish, fractured phyllite

Soil Properties and Qualities

Drainage class: Excessively drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderately rapid
Available water capacity: Very low
Root zone: Shallow

Minor Components

- Junaluska, Lily and Tsali soils, which are in similar landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Woodland

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Unsuited

Suitability to pasture: Unsuited
Management concerns: Depth to bedrock, erosion hazard, and low available water capacity

Woodland
Potential productivity: Low
Preferred trees to plant: Virginia pine
Management concerns: Slope, erodibility, content of rock fragments, and low available water capacity

Urban development
Suitability: Poorly suited
Limitations: Depth to bedrock, slope, and seepage

Recreational development
Suitability: Poorly suited
Limitations: Depth to bedrock, content of gravel and large stones, and slope

Interpretive Group

Land capability classification: 7S

CkG—Cataska channery silt loam, 45 to 70 percent slopes

Setting

Landform: Mountains
Landform position: Backslopes
Surface features: Outcropping of metasedimentary bedrock
Flooding: None
Slope: Very steep

Typical Profile

Surface layer:
0 to 2 inches—very dark grayish brown channery silt loam

Subsoil:
2 to 16 inches—yellowish brown very channery silt loam

Underlying material:
16 to 27 inches—grayish, rippable phyllite
27 inches—hard, grayish, fractured phyllite

Soil Properties and Qualities

Drainage class: Excessively drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderately rapid
Available water capacity: Very low
Root zone: Shallow

Minor Components

- Junaluska, Lily, and Tsali soils, which are in similar landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Woodland

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Unsuited
Suitability to pasture: Unsuited
Management concerns: Depth to bedrock, erosion hazard, and low available water capacity

Woodland
Potential productivity: Low
Preferred trees to plant: Virginia pine
Management concerns: Slope, erodibility, content of rock fragments, and low available water capacity

Urban development
Suitability: Poorly suited
Limitations: Depth to bedrock, slope, and seepage

Recreational development
Suitability: Poorly suited
Limitations: Depth to bedrock, content of gravel and large stones, and slope

Interpretive Group

Land capability classification: 7S

CnA—Chenneby silt loam, 0 to 2 percent slopes, occasionally flooded

Setting

Landform: Flood plains
Flooding: Occasional
Slope: Nearly level

Typical Profile

Surface layer:
0 to 6 inches—brown silt loam

Subsurface layer:
6 to 11 inches—brown silt loam that has light olive brown mottles

Subsoil:
11 to 20 inches—light olive brown silt loam that has olive and yellowish brown mottles
20 to 55 inches—variegated pale olive, olive yellow, light brownish gray, and yellowish brown silt loam
55 to 82 inches—variegated gray, yellowish brown, and light olive brown loam

Soil Properties and Qualities

Drainage class: Somewhat poorly drained
Seasonal high water table: Apparent; at a depth of 1.5 to 2.5 feet
Permeability: Moderate
Available water capacity: High
Root zone: Very deep

Minor Components

- Shellbluff and Whitwell soils, which are in the slightly higher landform positions
- Arkabutla and Ketona soils, which are in the slightly lower landform positions

Use and Management

Land use: Cropland, hayland, pasture, and woodland

Cropland, hayland, and pasture
Suitability to field crops: Moderately suited
Suitability to hay: Moderately suited
Suitability to pasture: Moderately suited
Management concerns: Flooding and wetness

Woodland
Potential productivity: High
Preferred trees to plant: Loblolly pine, American sycamore, sweetgum, water oak, and yellow-poplar
Management concerns: Flooding, low strength, and wetness

Urban development
Suitability: Poorly suited
Limitations: Flooding, depth to saturated zone, slow water movement, and low strength

Recreational development
Suitability: Moderately suited
Limitations: Flooding and depth to saturated zone

Interpretive Group

Land capability classification: 2W

CoA—Chenneby-Urban land complex, 0 to 2 percent slopes, occasionally flooded

Setting

Landform: Flood plains in urban areas
Flooding: Occasional
Slope: Nearly level

Composition

Chenneby soils—about 60 percent
Urban land soils—about 40 percent

Typical Profile

Chenneby
Surface layer:
0 to 6 inches—brown silt loam

Subsurface layer:
6 to 11 inches—brown silt loam that has light olive brown mottles

Subsoil:
11 to 20 inches—light olive brown silt loam that has olive and yellowish brown mottles
20 to 30 inches—variegated pale olive, light brownish gray, and yellowish brown silt loam
30 to 55 inches—variegated light brownish gray, olive yellow, and yellowish brown silt loam
55 to 82 inches—variegated gray, yellowish brown, and light olive brown loam

Urban land

Urban land consists of areas that have been altered by cutting, filling, and shaping. Schools, parking lots, streets, commercial buildings, residential dwellings, or other structures are located in these areas.

Soil Properties and Qualities

Drainage class: Chenneby—somewhat poorly drained
Seasonal high water table: Chenneby—apparent; at a depth of 1.5 to 2.5 feet
Permeability: Chenneby—moderate
Available water capacity: Chenneby—high
Root zone: Chenneby—very deep

Minor Components

- Ketona soils, which are in the slightly lower landform positions
- Shellbluff and Whitwell soils, which are in the slightly higher landform positions
- Soils that have gravel layers at a depth of less than 60 inches

Use and Management

Land use: Chenneby soils—wooded drainage areas, lawns, and gardens; Urban land—buildings, streets, parking lots, sidewalks, and other structures

Urban development
Suitability: Poorly suited
Limitations: Flooding, depth to saturated zone, slow water movement, and low strength

Recreational development
Suitability: Moderately suited
Limitations: Flooding and depth to saturated zone

Interpretive Group

Land capability classification: Chenneby—2W; Urban land— none assigned

CrE—Cheoah-Edneytown complex, 15 to 35 percent slopes

Setting

Landform: Mountains
Landform position: Summits, shoulders, and upper backslopes
Flooding: None
Slope: Moderately steep or steep

Composition

Cheoah soils—about 50 percent
Edneytown soils—about 50 percent

Typical Profile

Cheoah
Surface layer:
0 to 7 inches—black loam

Subsurface layer:
7 to 12 inches—very dark grayish brown loam

Subsoil:
12 to 32 inches—dark yellowish brown loam that has very dark grayish brown mottles

32 to 54 inches—dark yellowish brown loam that has grayish brown mottles

Substratum:
54 to 59 inches—dark yellowish brown loam that has very pale brown mottles

Underlying material:
59 to 65 inches—multicolored, rippable phyllite and metasandstone bedrock

Edneytown
Surface layer:
0 to 4 inches—very dark grayish brown loam

Subsurface layer:
4 to 7 inches—brown loam
7 to 10 inches—dark yellowish brown loam

Subsoil:
10 to 35 inches—strong brown sandy clay loam
35 to 45 inches—strong brown sandy loam

Substratum:
45 to 60 inches—yellowish brown loamy sand that has very pale brown mottles

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Cheoah—moderately rapid; Edneytown—moderate
Available water capacity: Cheoah—low; Edneytown—moderate
Root zone: Cheoah—deep; Edneytown—very deep

Minor Components

- Cataska, Junaluska, Lily, Pigeonroost, and Tsali soils, which are in similar landform positions
- A few small areas of rock outcrops

Use and Management

Land use: Woodland and pasture

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Unsuited
Suitability to pasture: Poorly suited
Management concerns: Hazard of erosion and slope

Woodland
Potential productivity: Moderate
Preferred trees to plant: Eastern white pine, yellow-poplar, northern red oak, and shortleaf pine
Management concerns: Slope, erodibility, content of rock fragments, and low available water capacity

Urban development
Suitability: Moderately suited
Limitations: Slope, seepage, depth to bedrock, and slow water movement

Recreational development
Suitability: Poorly suited
Limitations: Content of gravel and slope

Interpretive Group

Land capability classification: 6E

CsC—Conasauga silt loam, 6 to 10 percent slopes

Setting

Landform: Low hills
Landform position: Backslopes and footslopes
Surface features: Outcropping of limestone in places
Flooding: None
Slope: Strongly sloping

Typical Profile

Surface layer:
0 to 3 inches—brown silt loam

Subsurface layer:
3 to 6 inches—yellowish brown silt loam

Subsoil:
6 to 15 inches—yellowish brown silty clay loam
15 to 28 inches—light olive brown silty clay that has strong brown and yellowish red mottles
28 to 34 inches—light olive brown silty clay that has strong brown and light gray mottles
34 to 38 inches—variegated light olive brown, strong brown, and light gray silty clay loam

Underlying material:
38 to 60 inches: multicolored, rippable shale bedrock bedded at angles of 35 to 90 degrees

Soil Properties and Qualities

Drainage class: Moderately well drained
Seasonal high water table: Apparent; at a depth of 1.5 to 3.0 feet
Permeability: Slow
Available water capacity: Low
Root zone: Moderately deep

Minor Components

- Albertville, Cunningham, Enders, and Townley soils, which are in similar landform positions
- Capshaw and Docena soils, which are in the slightly lower landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Pasture, woodland, hayland, and cropland

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Moderately suited
Suitability to pasture: Moderately suited
Management concerns: Hazard of erosion

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and shortleaf pine

Management concerns: Slope, erodibility, low strength, stickiness, high plasticity index, and content of rock fragments

Urban development
Suitability: Poorly suited
Limitations: Slope, depth to bedrock, shrink-swell potential, slow water movement, and depth to saturated zone

Recreational development
Suitability: Moderately suited
Limitations: Slope, slow water movement, depth to saturated zone, and depth to bedrock

Interpretive Group

Land capability classification: 4E

CuC—Conasauga-Urban land complex, 2 to 10 percent slopes

Setting

Landform: Low hills in urban areas
Landform position: Backslopes and footslopes
Flooding: None
Slope: Gently sloping or strongly sloping

Composition

Conasauga soils—about 60 percent
Urban land soils—about 40 percent

Typical Profile

Conasauga
Surface layer:
0 to 3 inches—brown silt loam

Subsurface layer:
3 to 6 inches—yellowish brown silt loam

Subsoil:
6 to 15 inches—yellowish brown silty clay loam
15 to 28 inches—light olive brown silty clay that has strong brown and yellowish red mottles
28 to 34 inches—light olive brown silty clay that has strong brown and light gray mottles
34 to 38 inches—variegated light olive brown, strong brown, and light gray silty clay loam

Underlying material:
38 to 60 inches—multicolored, rippable shale bedrock bedded at angles of 35 to 90 degrees

Urban land
Urban land consists of areas that have been altered by cutting, filling, and shaping. Schools, parking lots, streets, commercial buildings, residential dwellings, or other structures are located in these areas.

Soil Properties and Qualities

Drainage class: Conasauga—moderately well drained
Seasonal high water table: Conasauga—apparent; at a depth of 1.5 to 3.0 feet
Permeability: Conasauga—slow
Available water capacity: Conasauga—moderate
Root zone: Conasauga—moderately deep

Minor Components

- Albertville and Townley soils, which are in similar landform positions
- Capshaw and Docena, which are in the slightly lower landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Conasauga—buffer areas, lawns, landscaped areas, gardens, parks and recreation, and idle areas; Urban land—buildings, houses, parking lots, sidewalks, streets, and other structures

Urban development
Suitability: Poorly suited
Limitations: Depth to bedrock, shrink-swell potential, slow water movement, and depth to saturated zone

Recreational development
Suitability: Moderately suited
Limitations: Slope, slow water movement, depth to saturated zone, and depth to bedrock

Interpretive Group

Land capability classification: Conasauga—4E; Urban land—none assigned

CvB—Craigsville gravelly sandy loam, 0 to 5 percent slopes, occasionally flooded

Setting

Landform: Narrow flood plains
Flooding: Occasional
Slope: Nearly level or gently sloping

Typical Profile

Surface layer:
0 to 4 inches—very dark grayish brown gravelly sandy loam

Subsoil:
4 to 24 inches—dark yellowish brown extremely gravelly sandy loam

Substratum:
24 to 33 inches—dark yellowish brown extremely gravelly coarse sandy loam
33 to 60 inches—brown extremely gravelly coarse sandy loam

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderately rapid

Available water capacity: Low
Root zone: Very deep

Minor Components

- Soils that have fewer rock fragments throughout the profile than the Craigsville soil
- Soils that are not well drained
- Soils that are not subject to flooding

Use and Management

Land use: Woodland

Cropland, hayland, and pasture
Suitability to field crops: Moderately suited
Suitability to hay: Moderately suited
Suitability to pasture: Well suited
Management concerns: Flooding and content of gravel

Woodland
Potential productivity: Moderate
Preferred trees to plant: Eastern white pine and yellow-poplar
Management concerns: Flooding and rock fragments

Urban development
Suitability: Poorly suited
Limitations: Flooding, seepage, and filtering capacity

Recreational development
Suitability: Poorly suited
Limitations: Flooding and content of gravel

Interpretive Group

Land capability classification: 3S

CxB—Cunningham silt loam, 2 to 6 percent slopes

Setting

Landform: Low hills
Landform position: Backslopes and footslopes
Flooding: None
Slope: Gently sloping

Typical Profile

Surface layer:
0 to 8 inches—yellowish brown silt loam

Subsoil:
8 to 11 inches—brownish yellow silty clay loam that has strong brown mottles
11 to 20 inches—strong brown silty clay loam
20 to 28 inches—yellowish red silty clay that has red mottles
28 to 36 inches—yellowish red silty clay that has brownish yellow and red mottles
36 to 53 inches—variegated red, strong brown, brownish yellow, and very pale brown channery silty clay

Underlying material:
53 to 60 inches—variegated red, strong brown, brownish yellow, and very pale brown highly weathered shale bedrock that crushes to very channery silty clay loam

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Slow
Available water capacity: Moderate
Root zone: Deep

Minor Components

- Albertville, Conasauga, Enders, and Townley soils, which are in similar landform positions
- Capshaw soils, which are in the slightly lower landform positions
- Soils that have darker red colors and sandier textures than the Cunningham soil

Use and Management

Land use: Pasture, hayland, woodland, and cropland

Cropland, hayland, and pasture
Suitability to field crops: Well suited
Suitability to hay: Well suited
Suitability to pasture: Well suited
Management concerns: Hazard of erosion

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and shortleaf pine
Management concerns: Slope, erodibility, low strength, stickiness, high plasticity index, and content of rock fragments

Urban development
Suitability: Moderately suited
Limitations: Depth to bedrock, slow water movement, low strength, and shrink-swell potential

Recreational development
Suitability: Moderately suited
Limitations: Slope and slow water movement

Interpretive Group

Land capability classification: 2E

CxD—Cunningham silt loam, 6 to 15 percent slopes

Setting

Landform: Low hills
Landform position: Summits and backslopes
Flooding: None
Slope: Strongly sloping

Typical Profile

Surface layer:
0 to 8 inches—yellowish brown silt loam

Subsoil:
8 to 11 inches—brownish yellow silty clay loam that has strong brown mottles
11 to 20 inches—strong brown silty clay loam

20 to 28 inches—yellowish red silty clay that has red mottles
28 to 36 inches—yellowish red silty clay that has brownish yellow and red mottles
36 to 53 inches—variegated red, strong brown, brownish yellow, and very pale brown channery silty clay

Underlying material:
53 to 60 inches—variegated red, strong brown, brownish yellow, and very pale brown highly weathered shale bedrock that crushes to very channery silty clay loam

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Slow
Available water capacity: Moderate
Root zone: Deep

Minor Components

- Albertville, Enders, Montevallo, Townley, and Waynesboro soils, which are in similar landform positions
- Capshaw, Conasauga, and Docena soils, which are in the slightly lower landform positions
- Soils that have darker red colors and sandier textures than the Cunningham soil
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Pasture, hayland, woodland, and cropland

Cropland, hayland, and pasture
Suitability to field crops: Poorly suited
Suitability to hay: Moderately suited
Suitability to pasture: Moderately suited
Management concerns: Hazard of erosion

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and shortleaf pine
Management concerns: Slope, erodibility, low strength, stickiness, high plasticity index, and content of rock fragments

Urban development
Suitability: Moderately suited
Limitations: Depth to bedrock, shrink-swell potential, slope, slow water movement, and low strength

Recreational development
Suitability: Moderately suited
Limitations: Slope and slow water movement

Interpretive Group

Land capability classification: 4E

CxE—Cunningham silt loam, 15 to 30 percent slopes

Setting

Landform: Low hills
Landform position: Summits and backslopes

Flooding: None
Slope: Moderately steep

Typical Profile

Surface layer:
0 to 8 inches—yellowish brown silt loam

Subsoil:
8 to 11 inches—brownish yellow silty clay loam that has strong brown mottles
11 to 20 inches—strong brown silty clay loam
20 to 28 inches—yellowish red silty clay that has red mottles
28 to 36 inches—yellowish red silty clay that has brownish yellow and red mottles
36 to 53 inches—variegated red, strong brown, brownish yellow, and very pale brown channery silty clay

Underlying material:
53 to 60 inches—variegated red, strong brown, brownish yellow, and very pale brown highly weathered shale bedrock that crushes to very channery silty clay loam

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Slow
Available water capacity: Moderate
Root zone: Deep

Minor Components

- Enders, Montevallo, Nella, Panama, and Townley soils, which are on similar landforms
- Soils that have darker red colors and sandier textures than the Cunningham soil
- Areas of soils that have common to many sandstone rocks on the surface
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Woodland and pasture

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Unsuited
Suitability to pasture: Poorly suited
Management concerns: Hazard of erosion and slope

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and shortleaf pine
Management concerns: Slope, erodibility, low strength, low available water capacity, stickiness, high plasticity index, and content of rock fragments

Urban development
Suitability: Poorly suited
Limitations: Depth to bedrock, shrink-swell potential, slow water movement, low strength, and slope

Recreational development
Suitability: Poorly suited
Limitations: Slope and slow water movement

Interpretive Group

Land capability classification: 6E

CxF—Cunningham silt loam, 30 to 60 percent slopes

Setting

Landform: Low hills
Landform position: Summits and backslopes
Flooding: None
Slope: Steep to very steep

Typical Profile

Surface layer:
0 to 8 inches—yellowish brown silt loam

Subsoil:
8 to 11 inches—brownish yellow silty clay loam that has strong brown mottles
11 to 20 inches—strong brown silty clay loam
20 to 28 inches—yellowish red silty clay that has red mottles
28 to 36 inches—yellowish red silty clay that has brownish yellow and red mottles
36 to 53 inches—variegated red, strong brown, brownish yellow, and very pale brown channery silty clay

Underlying material:
53 to 60 inches—variegated red, strong brown, brownish yellow, and very pale brown highly weathered shale bedrock that crushes to very channery silty clay loam

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Slow
Available water capacity: Moderate
Root zone: Deep

Minor Components

- Enders, Montevallo, Nella, Panama, and Townley soils, which are on similar landforms
- Soils that have darker red colors and sandier textures than the Cunningham soil
- Areas of soils that have common to many sandstone rocks on the surface
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Woodland

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Unsuited
Suitability to pasture: Unsuited
Management concerns: Hazard of erosion and slope

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and shortleaf pine
Management concerns: Slope, erodibility, low strength, low available water capacity, stickiness, high plasticity index, and content of rock fragments

Urban development
Suitability: Poorly suited
Limitations: Depth to bedrock, slow water movement, shrink-swell potential, low strength, and slope

Recreational development
Suitability: Poorly suited
Limitations: Slope and slow water movement

Interpretive Group

Land capability classification: 7E

DeB—Dewey silt loam, 2 to 6 percent slopes

Setting

Landform: Low hills
Landform position: Summits and backslopes
Flooding: None
Slope: Gently sloping

Typical Profile

Surface layer:
0 to 8 inches—reddish brown silt loam

Subsoil:
8 to 14 inches—dark red silty clay
14 to 48 inches—red clay that has yellow and brownish yellow mottles
48 to 60 inches—yellowish red clay that has yellow and brownish yellow mottles

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Available water capacity: High
Root zone: Very deep

Minor Components

- Enders, Fullerton, Hanceville, and Waynesboro soils, which are in similar landform positions
- Sequatchie soils, which are in the lower landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Cropland, pasture, hayland, and woodland

Cropland, hayland, and pasture
Suitability to field crops: Well suited
Suitability to hay: Well suited
Suitability to pasture: Well suited
Management concerns: Hazard of erosion

Woodland
Potential productivity: High
Preferred trees to plant: Loblolly pine, shortleaf pine, and yellow-poplar
Management concerns: Slope, erodibility, and low strength

Urban development
Suitability: Moderately suited
Limitations: Slow water movement, shrink-swell potential, and low strength

Recreational development
Suitability: Well suited
Limitations: Slope and content of gravel

Interpretive Group

Land capability classification: 2E

DeD—Dewey silt loam, 6 to 15 percent slopes

Setting

Landform: Low hills
Landform position: Summits and backslopes
Flooding: None
Slope: Strongly sloping

Typical Profile

Surface layer:
0 to 8 inches—reddish brown silt loam

Subsoil:
8 to 14 inches—dark red silty clay
14 to 48 inches—red clay that has yellow and brownish yellow mottles
48 to 60 inches—yellowish red clay that has yellow and brownish yellow mottles

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Available water capacity: High
Root zone: Very deep

Minor Components

- Enders, Fullerton, and Hanceville soils, which are on similar landforms
- Sequatchie soils, which are on the lower landforms
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Cropland, pasture, hayland, and woodland

Cropland, hayland, and pasture
Suitability to field crops: Poorly suited
Suitability to hay: Moderately suited
Suitability to pasture: Moderately suited
Management concerns: Hazard of erosion

Woodland
Potential productivity: High
Preferred trees to plant: Loblolly pine, shortleaf pine, and yellow-poplar
Management concerns: Slope, erodibility, and low strength

Urban development
Suitability: Moderately suited
Limitations: Slope, slow water movement, low strength, and shrink-swell potential

Recreational development
Suitability: Moderately suited
Limitations: Slope and content of gravel

Interpretive Group

Land capability classification: 4E

DoA—Docena silt loam, 0 to 2 percent slopes, occasionally flooded

Setting

Landform: Narrow drainageways
Flooding: Occasional
Slope: Nearly level

Typical Profile

Surface layer:
0 to 3 inches—brown silt loam

Subsoil:
3 to 7 inches—yellowish brown silt loam that has light yellowish brown mottles
7 to 12 inches—yellowish brown silty clay loam that has pale brown mottles
12 to 44 inches—light yellowish brown silty clay loam that has yellowish brown and light gray mottles
44 to 52 inches—variegated light brownish gray, light gray, and strong brown clay loam
52 to 60 inches—variegated light brownish gray, yellowish brown, and reddish yellow clay loam that has pockets of sandy clay loam

Soil Properties and Qualities

Drainage class: Moderately well drained
Seasonal high water table: Apparent; at a depth of 1.5 to 3.0 feet
Permeability: Slow
Available water capacity: High
Root zone: Very deep

Minor Components

- Capshaw and Conasauga soils, which are in the slightly higher landform positions
- Ketona and Chenneby soils, which are in similar landform positions
- Soils that have shale bedrock within 60 inches of the surface
- Soils that have a rock fragment content of more than 15 percent throughout

Use and Management

Land use: Woodland, pasture, and cropland

Cropland, hayland, and pasture
Suitability to field crops: Well suited
Suitability to hay: Well suited
Suitability to pasture: Well suited
Management concerns: Flooding and wetness

Woodland
Potential productivity: High
Preferred trees to plant: Loblolly pine, sweetgum, water oak, and yellow-poplar
Management concerns: Flooding, low strength, and wetness

Urban development
Suitability: Poorly suited
Limitations: Flooding, depth to saturated zone, shrink-swell potential, low strength, and slow water movement

Recreational development
Suitability: Moderately suited
Limitations: Flooding and depth to saturated zone

Interpretive Group

Land capability classification: 2W

DsB—Docena-Conasauga complex, 2 to 6 percent slopes

Setting

Landform: Low hills
Landform position: Backslopes, footslopes, and toeslopes
Flooding: None
Slope: Gently sloping

Composition

Docena soils—about 50 percent
Conasauga soils—about 50 percent

Typical Profile

Docena
Surface layer:
0 to 3 inches—brown silt loam

Subsoil:
3 to 7 inches—yellowish brown silt loam that has light yellowish brown mottles
7 to 12 inches—yellowish brown silty clay loam that has pale brown mottles
12 to 44 inches—light yellowish brown silty clay loam that has yellowish brown and light gray mottles
44 to 52 inches—variegated light brownish gray, light gray, and strong brown clay loam
52 to 60 inches—variegated light brownish gray, yellowish brown, and reddish yellow clay loam that has pockets of sandy clay loam

Conasauga
Surface layer:
0 to 3 inches—brown silt loam

Subsurface layer:
3 to 6 inches—yellowish brown silt loam

Subsoil:
6 to 15 inches—yellowish brown silty clay loam
15 to 28 inches—light olive brown silty clay that has strong brown and yellowish red mottles
28 to 34 inches—light olive brown silty clay that has strong brown and light gray mottles

Substratum:
34 to 38 inches—variegated light olive brown, strong brown and light gray silty clay loam

Underlying material:
38 to 60 inches—multicolored, rippable shale bedrock bedded at angles of 35 to 90 degrees

Soil Properties and Qualities

Drainage class: Moderately well drained
Seasonal high water table: Apparent; at a depth of 1.5 to 3.0 feet
Permeability: Slow
Available water capacity: Docena—high; Conasauga—moderate
Root zone: Docena—very deep; Conasauga—moderately deep

Minor Components

- Albertville and Capshaw, which are in similar landform positions
- Cunningham, Enders, and Townley soils, which are in the slightly higher landform positions
- Chenneby and Ketona soils, which are in the slightly lower landform positions
- Soils that have a rock fragment content of more than 15 percent throughout

Use and Management

Land use: Pasture, hayland, woodland, and cropland

Cropland, hayland, and pasture
Suitability to field crops: Well suited
Suitability to hay: Well suited
Suitability to pasture: Well suited
Management concerns: Hazard of erosion

Woodland
Potential productivity: Moderate
Preferred trees to plant: Sweetgum, water oak, yellow-poplar, loblolly pine, and shortleaf pine
Management concerns: Slope, erodibility, low strength, wetness, stickiness, high plasticity index, and content of rock fragments

Urban development
Suitability: Poorly suited
Limitations: Depth to bedrock, depth to saturated zone, slow water movement, shrink-swell potential, and low strength

Recreational development
Suitability: Moderately suited
Limitations: Slow water movement, depth to saturated zone, and slope

Interpretive Group

Land capability classification: Docena—2E; Conasauga—3E

Du—Dumps, sediment basins

Typical Profile

These areas are spoil piles and sediment basins for waste products from mining or other industries. Areas adjacent to sediment basins have been modified through cutting, filling, and shaping. Some natural soil layers may exist in these areas.

EdF—Edneytown loam, 25 to 45 percent slopes, rubbly

Setting

Landform: Mountains
Landform position: Summits, shoulders, and backslopes
Surface features: Outcropping of metamorphic bedrock in places
Flooding: None
Slope: Moderately steep or steep

Typical Profile

Surface layer:
0 to 4 inches—very dark grayish brown loam

Subsurface layer:
4 to 7 inches—brown loam
7 to 10 inches—dark yellowish brown loam

Subsoil:
10 to 35 inches—strong brown sandy clay loam
35 to 45 inches—strong brown sandy loam

Substratum:
45 to 60 inches—yellowish brown loamy sand that has very pale brown mottles

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Available water capacity: Low
Root zone: Very deep

Minor Components

- Cataska, Cheoah, Junaluska, Lily, Pigeonroost, and Tsali soils, which are in similar landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Woodland

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Unsuited
Suitability to pasture: Unsuited
Management concerns: Hazard of erosion and content of gravel and large stones

Woodland
Potential productivity: Moderate
Preferred trees to plant: Shortleaf pine
Management concerns: Slope, erodibility, content of rock fragments, and low available water capacity

Urban development
Suitability: Poorly suited
Limitations: Slope, seepage, and slow water movement

Recreational development
Suitability: Poorly suited
Limitations: Content of gravel and large stones and slope

Interpretive Group

Land capability classification: 7S

EdG—Edneytown loam, 45 to 70 percent slopes, rubbly

Setting

Landform: Mountains
Landform position: Summits, shoulders, and backslopes
Surface features: Cobbles, stones, and boulders scattered over the surface
Flooding: None
Slope: Very steep

Typical Profile

Surface layer:
0 to 4 inches—very dark grayish brown loam

Subsurface layer:
4 to 7 inches—brown loam
7 to 10 inches—dark yellowish brown loam

Subsoil:
10 to 35 inches—strong brown sandy clay loam
35 to 45 inches—strong brown sandy loam

Substratum:
45 to 60 inches—yellowish brown loamy sand that has very pale brown mottles

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Available water capacity: Low
Root zone: Very deep

Minor Components

- Cataska, Junaluska, Lily, Pigeonroost, and Tsali soils, which are in similar landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Woodland

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Unsuited
Suitability to pasture: Unsuited
Management concerns: Hazard of erosion and content of gravel and large stones

Woodland
Potential productivity: Moderate
Preferred trees to plant: Shortleaf pine

Management concerns: Slope, erodibility, content of rock fragments, and low available water capacity

Urban development
Suitability: Poorly suited
Limitations: Slope, seepage, and slow water movement

Recreational development
Suitability: Poorly suited
Limitations: Content of gravel and large stones and slope

Interpretive Group

Land capability classification: 7S

EnB—Enders silt loam, 2 to 6 percent slopes

Setting

Landform: Hills
Landform position: Summits, backslopes, and footslopes
Flooding: None
Slope: Gently sloping

Typical Profile

Surface layer:
0 to 6 inches—dark grayish brown silt loam

Subsurface layer:
6 to 10 inches—light yellowish brown silt loam that has yellowish red mottles

Subsoil:
10 to 27 inches—yellowish red clay that has red and very pale brown mottles
27 to 43 inches—reddish brown clay loam that has red and very pale brown mottles

Underlying material:
43 to 60 inches—highly weathered, dusky red sandstone and shale bedrock that crushes to silty clay loam and clay loam

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Very slow
Available water capacity: Moderate
Root zone: Deep

Minor Components

- Albertville, Conasauga, Nauvoo, and Townley soils, which are in similar landform positions
- Capshaw soils, which are in the lower landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Pasture, woodlands, and hayland

Cropland, hayland, and pasture
Suitability to field crops: Well suited
Suitability to hay: Well suited

Suitability to pasture: Well suited
Management concerns: Hazard of erosion

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and shortleaf pine
Management concerns: Slope, erodibility, low strength, content of rock fragments, stickiness, and high plasticity index

Urban development
Suitability: Poorly suited
Limitations: Depth to bedrock, slow water movement, low strength, and shrink-swell potential

Recreational development
Suitability: Poorly suited
Limitations: Slope and slow water movement

Interpretive Group

Land capability classification: 2E

EnD—Enders silt loam, 6 to 15 percent slopes

Setting

Landform: Hills
Landform position: Summits and backslopes
Flooding: None
Slope: Strongly sloping

Typical Profile

Surface layer:
0 to 6 inches—dark grayish brown silt loam

Subsurface layer:
6 to 10 inches—light yellowish brown silt loam that has yellowish red mottles

Subsoil:
10 to 27 inches—yellowish red clay that has red and very pale brown mottles
27 to 43 inches—reddish brown clay loam that has red and very pale brown mottles

Underlying material:
43 to 60 inches—highly weathered, dusky red sandstone and shale bedrock that crushes to silty clay loam and clay loam

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Very slow
Available water capacity: Moderate
Root zone: Deep

Minor Components

- Albertville, Montevallo, Nauvoo, and Townley soils, which are in similar landform positions

- Capshaw, Conasauga, and Docena soils, which are in the slightly lower landscape positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Pasture, woodland, and hayland

Cropland, hayland, and pasture
Suitability to field crops: Poorly suited
Suitability to hay: Moderately suited
Suitability to pasture: Moderately suited
Management concerns: Hazard of erosion

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and shortleaf pine
Management concerns: Slope, erodibility, low strength, content of rock fragments, stickiness, and high plasticity index

Urban development
Suitability: Poorly suited
Limitations: Depth to bedrock, slow water movement, low strength, shrink-swell potential, and slope

Recreational development
Suitability: Poorly suited
Limitations: Slope and slow water movement

Interpretive Group

Land capability classification: 4E

EuC—Enders-Urban land complex, 2 to 15 percent slopes

Setting

Landform: Hills in urban areas
Landform position: Summits, backslopes, and footslopes
Flooding: None
Slope: Gently sloping or strongly sloping

Composition

Enders soils—about 60 percent
Urban land soils—about 40 percent

Typical Profile

Enders
Surface layer:
0 to 6 inches—dark grayish brown silt loam

Subsurface layer:
6 to 10 inches—light yellowish brown silt loam that has yellowish red mottles

Subsoil:
10 to 27 inches—yellowish red clay that has red and very pale brown mottles
27 to 43 inches—reddish brown clay loam that has red and very pale brown mottles

Underlying material:
43 to 60 inches—highly weathered, dusky red sandstone and shale bedrock that crushes to silty clay loam and clay loam

Urban land

Urban land consists of areas that have been altered by cutting, filling, and shaping. Schools, parking lots, streets, commercial buildings, residential dwellings, or other structures are located in these areas.

Soil Properties and Qualities

Drainage class: Enders—well drained
Seasonal high water table: Enders—more than 6.0 feet
Permeability: Enders—slow or very slow
Available water capacity: Enders—moderate
Root zone: Enders—deep

Minor Components

- Montevallo, Townley, and Waynesboro soils, which are in similar landform positions
- Capshaw, Conasauga, and Docena soils, which are in the slightly lower landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Enders—lawns, gardens, and idle acres; Urban land—buildings, streets, parking lots, sidewalks, and other structures

Urban development
Suitability: Poorly suited
Limitations: Depth to bedrock, slow water movement, low strength, shrink-swell potential, and slope

Recreational development
Suitability: Poorly suited
Limitations: Slope and slow water movement

Interpretive Group

Land capability classification: Enders—4E; Urban land—none assigned

FtB—Fullerton gravelly silt loam, 2 to 6 percent slopes

Setting

Landform: Hills and ridges
Landform position: Summits and footslopes
Flooding: None
Slope: Gently sloping

Typical Profile

Surface layer:
0 to 3 inches—dark yellowish brown gravelly silt loam

Subsoil:
3 to 6 inches—strong brown gravelly silt loam
6 to 11 inches—yellowish red gravelly silty clay
11 to 24 inches—red gravelly silty clay
24 to 60 inches—red gravelly silty clay that has strong brown mottles

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Available water capacity: Moderate
Root zone: Very deep

Minor Components

- Dewey, Hanceville, Minvale, Waynesboro soils, which are in similar landform positions
- Wax soils, which are in the slightly lower landform positions
- Soils that have a chert fragment content of more than 35 percent on the surface and throughout the profile

Use and Management

Land use: Pasture, cropland, woodland, and hayland

Cropland, hayland, and pasture
Suitability to field crops: Well suited
Suitability to hay: Well suited
Suitability to pasture: Well suited
Management concerns: Hazard of erosion

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine, shortleaf pine, and yellow-poplar
Management concerns: Slope, erodibility, content of rock fragments, stickiness, and high plasticity index

Urban development
Suitability: Moderately suited
Limitations: Slow water movement, low strength, and shrink-swell potential

Recreational development
Suitability: Moderately suited
Limitations: Content of gravel and slope

Interpretive Group

Land capability classification: 2E

FtD—Fullerton gravelly silt loam, 6 to 15 percent slopes

Setting

Landform: Hills and ridges
Landform position: Summits and backslopes
Flooding: None
Slope: Strongly sloping

Typical Profile

Surface layer:
0 to 3 inches—dark yellowish brown gravelly silt loam

Subsoil:
3 to 6 inches—strong brown gravelly silt loam
6 to 11 inches—yellowish red gravelly silty clay

11 to 24 inches—red gravelly silty clay
24 to 60 inches—red gravelly silty clay that has strong brown mottles

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Available water capacity: Moderate
Root zone: Very deep

Minor Components

- Dewey, Hanceville, Minvale, and Waynesboro soils, which are in similar landform positions
- Soils that have a chert fragment content of more than 35 percent on the surface and throughout the profile
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Pasture, woodland, hayland, and cropland

Cropland, hayland, and pasture
Suitability to field crops: Poorly suited
Suitability to hay: Moderately suited
Suitability to pasture: Moderately suited
Management concerns: Hazard of erosion

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine, shortleaf pine, and yellow-poplar
Management concerns: Slope, erodibility, content of rock fragments, stickiness, and high plasticity index

Urban development
Suitability: Moderately suited
Limitations: Slope, shrink-swell potential, low strength, and slow water movement

Recreational development
Suitability: Poorly suited
Limitations: Content of gravel and slope

Interpretive Group

Land capability classification: 4E

FtE—Fullerton gravelly silt loam, 15 to 30 percent slopes

Setting

Landform: Hills and ridges
Landform position: Backslopes
Flooding: None
Slope: Moderately steep

Typical Profile

Surface layer:
0 to 3 inches—dark yellowish brown gravelly silt loam

Subsoil:
3 to 6 inches—strong brown gravelly silt loam
6 to 11 inches—yellowish red gravelly silty clay
11 to 24 inches—red gravelly silty clay
24 to 60 inches—red gravelly silty clay that has strong brown mottles

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Available water capacity: Moderate
Root zone: Very deep

Minor Components

- Dewey, Hanceville, Minvale, and Waynesboro soils, which are in similar landform positions
- Soils that have a chert fragment content of more than 35 percent on the surface and throughout the profile
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Woodland and pasture

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Unsuited
Suitability to pasture: Poorly suited
Management concerns: Hazard of erosion

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and shortleaf pine
Management concerns: Slope, erodibility, content of rock fragments, available water capacity, stickiness, and high plasticity index

Urban development
Suitability: Poorly suited
Limitations: Slope, slow water movement, low strength, and shrink-swell potential

Recreational development
Suitability: Poorly suited
Limitations: Content of gravel and slope

Interpretive Group

Land capability classification: 6E

FtF—Fullerton gravelly silt loam, 30 to 60 percent slopes

Setting

Landform: Hills and ridges
Landform position: Backslopes
Flooding: None
Slope: Steep

Typical Profile

Surface layer:
0 to 3 inches—dark yellowish brown gravelly silt loam

Subsoil:
3 to 6 inches—strong brown gravelly silt loam
6 to 11 inches—yellowish red gravelly silty clay
11 to 24 inches—red gravelly silty clay
24 to 60 inches—red gravelly silty clay that has strong brown mottles

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Available water capacity: Moderate
Root zone: Very deep

Minor Components

- Dewey, Hanceville, Minvale, and Waynesboro soils, which are in similar landform positions
- Soils that have a chert fragment content of more than 35 percent on the surface and throughout the profile
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Woodland

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Unsuited
Suitability to pasture: Unsuited
Management concerns: Hazard of erosion

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and shortleaf pine
Management concerns: Slope, erodibility, content of rock fragments, low available water capacity, stickiness, and high plasticity index

Urban development
Suitability: Poorly suited
Limitations: Slow water movement, low strength, shrink-swell potential, and slope

Recreational development
Suitability: Poorly suited
Limitations: Content of gravel and slope

Interpretive Group

Land capability classification: 7E

FuE—Fullerton-Urban land complex, 15 to 30 percent slopes

Setting

Landform: Hills and ridges in urban areas
Landform position: Backslopes

Flooding: None
Slope: Moderately steep

Composition

Fullerton soils—about 60 percent
Urban land soils—about 40 percent

Typical Profile

Fullerton
Surface layer:
0 to 3 inches—dark yellowish brown gravelly silt loam

Subsoil:
3 to 6 inches—strong brown gravelly silt loam
6 to 11 inches—yellowish red gravelly silty clay
11 to 24 inches—red gravelly silty clay
24 to 60 inches—red gravelly silty clay that has strong brown mottles

Urban land
Urban land consists of areas that have been altered by cutting, filling, and shaping. Schools, parking lots, streets, commercial buildings, residential dwellings, or other structures are located in these areas.

Soil Properties and Qualities

Drainage class: Fullerton—well drained
Seasonal high water table: Fullerton—more than 6.0 feet
Permeability: Fullerton—moderate
Available water capacity: Fullerton—moderate
Root zone: Fullerton—very deep

Minor Components

- Bodine, Minvale, and Waynesboro soils, which are in similar landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Fullerton—lawns, gardens, buffer strips, and idle areas; Urban land—buildings, streets, parking lots, sidewalks, and other structures

Urban development
Suitability: Poorly suited
Limitations: Slope, shrink-swell potential, low strength, and slow water movement

Recreational development
Suitability: Poorly suited
Limitations: Content of gravel and slope

Interpretive Group

Land capability classification: Fullerton—6E; Urban land—none assigned

GrA—Guthrie silt loam, 0 to 2 percent slopes, occasionally flooded

Setting

Landform: Narrow flood plains and depressions
Flooding: Occasional

Slope: Nearly level

Typical Profile

Surface layer:
0 to 3 inches—dark grayish brown silt loam

Subsurface layer:
3 to 7 inches—dark grayish brown silt loam that has yellowish brown and light brownish gray mottles

Subsoil:
7 to 18 inches—light gray silty clay loam that has brownish yellow mottles
18 to 25 inches—light gray silty clay loam that has strong brown and light yellowish brown mottles
25 to 40 inches—light gray very gravelly silty clay loam that has brownish yellow and strong brown mottles
40 to 60 inches—light gray very gravelly silty clay loam that has strong brown mottles

Soil Properties and Qualities

Drainage class: Poorly drained
Seasonal high water table: Apparent; at a depth of 0.5 to 1.0 foot
Permeability: Slow
Available water capacity: Low
Root zone: Very deep

Minor Components

- Wax soils and other soils that are somewhat poorly drained and in similar landform positions

Use and Management

Land use: Woodland, pasture, hayland, and cropland

Cropland, hayland, and pasture
Suitability to field crops: Poorly suited
Suitability to hay: Poorly suited
Suitability to pasture: Poorly suited
Management concerns: Flooding and wetness

Woodland
Potential productivity: Moderately suited
Preferred trees to plant: Loblolly pine and sweetgum
Management concerns: Wetness, ponding, flooding, and low strength

Urban development
Suitability: Poorly suited
Limitations: Flooding, depth to saturated zone, slow water movement, and low strength

Recreational development
Suitability: Unsuited
Limitations: Flooding, depth to saturated zone, slow water movement, and content of gravel

Interpretive Group

Land capability classification: 4W

HcB—Hanceville loam, 2 to 6 percent slopes

Setting

Landform: Low hills
Landform position: Summits, backslopes, and footslopes
Flooding: None
Slope: Gently sloping

Typical Profile

Surface layer:
0 to 3 inches—dark reddish brown loam

Subsurface layer:
3 to 10 inches—dark reddish brown clay loam

Subsoil:
10 to 60 inches—dark reddish brown clay loam

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Available water capacity: High
Root zone: Very deep

Minor Components

- Allen, Cunningham, Fullerton, and Waynesboro soils, which are in similar landform positions

Use and Management

Land use: Pasture, hayland, cropland, and woodland

Cropland, hayland, and pasture
Suitability to field crops: Well suited
Suitability to hay: Well suited
Suitability to pasture: Well suited
Management concerns: Hazard of erosion

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and Virginia pine
Management concerns: Slope, erodibility, low strength, stickiness, and high plasticity index

Urban development
Suitability: Moderately suited
Limitations: Slow water movement, shrink-swell potential, and low strength

Recreational development
Suitability: Well suited
Limitations: Slope

Interpretive Group

Land capability classification: 2E

HcD—Hanceville loam, 6 to 15 percent slopes

Setting

Landform: Low hills and ridges
Landform position: Summits and backslopes
Flooding: None
Slope: Strongly sloping

Typical Profile

Surface layer:
0 to 3 inches—dark reddish brown loam

Subsurface layer:
3 to 10 inches—dark reddish brown clay loam

Subsoil:
10 to 60 inches—dark reddish brown clay loam

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Available water capacity: High
Root zone: Very deep

Minor Components

- Allen, Cunningham, Dewey, Fullerton, and Waynesboro soils, which are in similar landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Cropland, hayland, pasture, and woodland

Cropland, hayland, and pasture
Suitability to field crops: Poorly suited
Suitability to hay: Moderately suited
Suitability to pasture: Moderately suited
Management concerns: Hazard of erosion

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and shortleaf pine
Management concerns: Slope, erodibility, low strength, stickiness, and high plasticity index

Urban development
Suitability: Moderately suited
Limitations: Slow water movement, shrink-swell potential, low strength, and slope

Recreational development
Suitability: Moderately suited
Limitations: Slope

Interpretive Group

Land capability classification: 4E

HcE—Hanceville loam, 15 to 30 percent slopes

Setting

Landform: Low hills and ridges
Landform position: Backslopes
Flooding: None
Slope: Moderately steep

Typical Profile

Surface layer:
0 to 3 inches—dark reddish brown loam

Subsurface layer:
3 to 10 inches—dark reddish brown clay loam

Subsoil:
10 to 60 inches—dark reddish brown clay loam

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Available water capacity: High
Root zone: Very deep

Minor Components

- Allen, Dewey, Cunningham, Fullerton, Montevallo, Townley, and Waynesboro soils, which are in similar landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Pasture, hayland, and woodland

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Poorly suited
Suitability to pasture: Poorly suited
Management concerns: Hazard of erosion

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and shortleaf pine
Management concerns: Slope, erodibility, low strength, available water capacity, stickiness, and high plasticity index

Urban development
Suitability: Poorly suited
Limitations: Slope, slow water movement, low strength, and shrink-swell potential

Recreational development
Suitability: Poorly suited
Limitations: Slope

Interpretive Group

Land capability classification: 6E

HnC—Hanceville-Urban land complex, 2 to 15 percent slopes

Setting

Landform: Low hills and ridges in urban areas
Landform position: Summits and backslopes
Flooding: None
Slope: Gently sloping or strongly sloping

Composition

Hanceville soils—about 60 percent
Urban land soils—about 40 percent

Typical Profile

Hanceville
Surface layer:
0 to 3 inches—dark reddish brown loam

Subsurface layer:
3 to 10 inches—dark reddish brown clay loam

Subsoil:
10 to 60 inches—dark reddish brown clay loam

Urban land
Urban land consists of areas that have been altered by cutting, filling, and shaping. Schools, parking lots, streets, commercial buildings, residential dwellings, or other structures are located in these areas.

Soil Properties and Qualities

Drainage class: Hanceville—well drained
Seasonal high water table: Hanceville—more than 6.0 feet
Permeability: Hanceville—moderate
Available water capacity: Hanceville—high
Root zone: Hanceville—very deep

Minor Components

- Allen, Cunningham, Fullerton, Montevallo, Townley, and Waynesboro soils, which are in similar landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Hanceville soils—lawns, gardens, and idle acres; Urban land—buildings, streets, parking lots, sidewalks, and other structures

Urban development
Suitability: Moderately suited
Limitations: Slope, slow water movement, low strength, and shrink-swell potential

Recreational development
Suitability: Moderately suited
Limitations: Slope

Interpretive Group

Land capability classification: Hanceville—4E; Urban land—none assigned

HrF—Hector-Townley-Rock outcrop complex, 5 to 35 percent slopes

Setting

Landform: Ridges
Landform position: Summits and backslopes
Flooding: None
Slope: Gently sloping to steep

Composition

Hector—about 50 percent
Townley—about 30 percent
Rock outcrop—about 20 percent

Typical Profile

Hector
Surface layer:
0 to 4 inches—very dark grayish brown very gravelly sandy loam

Subsurface layer:
4 to 11 inches—brown gravelly sandy loam

Subsoil:
11 to 19 inches—dark yellowish brown gravelly sandy loam

Underlying material:
19 inches—hard sandstone bedrock

Townley
Surface layer:
0 to 5 inches—yellowish brown silt loam

Subsoil:
5 to 16 inches—strong brown silty clay that has brownish yellow mottles
16 to 27 inches—strong brown channery silty clay loam that has red and brownish yellow mottles

Underlying material:
27 to 60 inches—multicolored, rippable shale bedrock bedded at angles up to 35 degrees

Rock outcrop
Rock outcrop consists of outcrops of bedrock and detached bedrock that cover almost the entire surface. A few pockets of shallow soils can be found between outcrops. The exposed bedrock ranges from 5 inches to 25 feet in length.

Soil Properties and Qualities

Drainage class: Hector and Townley—well drained
Seasonal high water table: Hector and Townley—more than 6.0 feet
Permeability: Hector—moderately rapid; Townley—slow
Available water capacity: Hector—very low; Townley—low
Root zone: Hector—shallow; Townley—moderately deep

Minor Components

- Enders, Montevallo, and Nella soils, which are in similar landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Woodland

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Unsuited
Suitability to pasture: Unsuited
Management concerns: Erosion hazard, depth to bedrock, content of gravel and large stones, low available water capacity, and slope

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and shortleaf pine
Management concerns: Slope, erodibility, low strength, content of rock fragments, low available water capacity, stickiness, and high plasticity index

Urban development
Suitability: Poorly suited
Limitations: Depth to bedrock, seepage, low strength, and slope

Recreational development
Suitability: Poorly suited
Limitations: Depth to bedrock, content of gravel and large stones, slow water movement, and slope

Interpretive Group

Land capability classification: Hector—7E; Townley—7E; Rock outcrop—none assigned

HsB—Holston fine sandy loam, 2 to 6 percent slopes

Setting

Landform: High stream terraces and hills
Landform position: Footslopes
Flooding: None
Slope: Gently sloping

Typical Profile

Surface layer:
0 to 7 inches—dark yellowish brown fine sandy loam

Subsoil:
7 to 26 inches—yellowish brown clay loam
26 to 36 inches—strong brown clay loam that has yellowish brown mottles
36 to 45 inches—strong brown clay loam that has red and yellowish brown mottles
45 to 60 inches—variegated red, strong brown, and yellowish brown clay loam

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Available water capacity: Moderate
Root zone: Very deep

Minor Components

- Albertville, Allen, Enders, and Sipsey soils, which are in similar landform positions
- Conasauga, Docena, and Whitwell, which are in the slightly lower landform positions

Use and Management

Land use: Pasture, hayland, woodland, and cropland

Cropland, hayland, and pasture
Suitability to field crops: Well suited
Suitability to hay: Well suited
Suitability to pasture: Well suited
Management concerns: Hazard of erosion

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and shortleaf pine
Management concerns: Slope and erodibility

Urban development
Suitability: Well suited
Limitations: Slow water movement and low strength

Recreational development
Suitability: Well suited
Limitations: Slope and content of gravel

Interpretive Group

Land capability classification: 2E

HsD—Holston fine sandy loam, 6 to 15 percent slopes

Setting

Landform: High stream terraces and hills
Landform position: Footslopes of hills
Flooding: None
Slope: Strongly sloping

Typical Profile

Surface layer:
0 to 7 inches—dark yellowish brown fine sandy loam

Subsoil:
7 to 26 inches—yellowish brown clay loam
26 to 36 inches—strong brown clay loam that has yellowish brown mottles
36 to 45 inches—strong brown clay loam that has red and yellowish brown mottles
45 to 60 inches—variegated red, strong brown, and yellowish brown clay loam

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Available water capacity: Moderate
Root zone: Very deep

Minor Components

- Albertville, Allen, Enders, and Sipsey soils, which are in similar landform positions
- Conasauga, Docena, and Whitwell, which are in the slightly lower landform positions

Use and Management

Land use: Pasture, hayland, woodland, and cropland

Cropland, hayland, and pasture
Suitability to field crops: Poorly suited
Suitability to hay: Moderately suited
Suitability to pasture: Moderately suited
Management concerns: Hazard of erosion

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and shortleaf pine
Management concerns: Slope and erodibility

Urban development
Suitability: Moderately suited
Limitations: Slope, slow water movement, and low strength

Recreational development
Suitability: Moderately suited
Limitations: Slope and content of gravel

Interpretive Group

Land capability classification: 4E

JfF—Jefferson gravelly sandy loam, 25 to 45 percent slopes

Setting

Landform: Low mountains
Landform position: Summits, shoulders, and backslopes
Surface features: Outcropping of sandstone bedrock in places
Flooding: None
Slope: Steep

Typical Profile

Surface layer:
0 to 5 inches—very dark grayish brown gravelly sandy loam

Subsurface layer:
5 to 10 inches—yellowish brown sandy loam

Subsoil:
10 to 32 inches—yellowish brown gravelly sandy clay loam
32 to 40 inches—yellowish brown very gravelly sandy clay loam
40 to 60 inches—yellowish brown extremely gravelly sandy loam

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderately rapid

Available water capacity: Low
Root zone: Very deep

Minor Components

- Junaluska, Lily, and Tsali soils, which are in similar landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Woodland

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Unsuited
Suitability to pasture: Unsuited
Management concerns: Hazard of erosion and content of gravel and large stones

Woodland
Potential productivity: Moderate
Preferred trees to plant: Shortleaf pine and yellow-poplar
Management concerns: Slope, erodibility, low available water capacity, and content of rock fragments

Urban development
Suitability: Poorly suited
Limitations: Slope and seepage

Recreational development
Suitability: Poorly suited
Limitations: Slope and content of gravel

Interpretive Group

Land capability classification: 7E

JfG—Jefferson gravelly sandy loam, 45 to 70 percent slopes, very stony

Setting

Landform: Low mountains
Landform position: Backslopes
Surface features: Outcropping of sandstone bedrock in places
Flooding: None
Slope: Very steep

Typical Profile

Surface layer:
0 to 5 inches—very dark grayish brown gravelly sandy loam

Subsurface layer:
5 to 10 inches—yellowish brown sandy loam

Subsoil:
10 to 32 inches—yellowish brown gravelly sandy clay loam
32 to 40 inches—yellowish brown very gravelly sandy clay loam
40 to 60 inches—yellowish brown extremely gravelly sandy loam

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderately rapid
Available water capacity: Low
Root zone: Very deep

Minor Components

- Junaluska, Lily, and Tsali soils, which are in similar landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Woodland

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Unsuited
Suitability to pasture: Unsuited
Management concerns: Hazard of erosion and content of gravel and large stones

Woodland
Potential productivity: Moderate
Preferred trees to plant: Shortleaf pine and yellow-poplar
Management concerns: Slope, erodibility, low available water capacity, and content of rock fragments

Urban development
Suitability: Poorly suited
Limitations: Slope and seepage

Recreational development
Suitability: Poorly suited
Limitations: Content of gravel and slope

Interpretive Group

Land capability classification: 7E

JsE—Junaluska loam, 5 to 25 percent slopes

Setting

Landform: Mountains
Landform position: Summits, shoulders, and backslopes
Flooding: None
Slope: Gently sloping to moderately steep

Typical Profile

Surface layer:
0 to 5 inches—brown loam

Subsoil:
5 to 16 inches—strong brown channery silty clay loam
16 to 29 inches—yellowish red channery silty clay loam

Underlying material:
29 to 60 inches—multicolored, rippable phyllite and metasandstone bedrock bedded at angles up to 30 degrees

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Available water capacity: Low
Root zone: Moderately deep

Minor Components

- Cataska, Lily and Tsali soils, which are in similar landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Woodland and pasture

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Unsuited
Suitability to pasture: Poorly suited
Management concerns: Hazard of erosion

Woodland
Potential productivity: Moderate
Preferred trees to plant: Shortleaf pine
Management concerns: Slope, erodibility, and content of rock fragments

Urban development
Suitability: Poorly suited
Limitations: Depth to bedrock, slow water movement, low strength, and slope

Recreational development
Suitability: Poorly suited
Limitations: Depth to bedrock, content of gravel, and slope

Interpretive Group

Land capability classification: 6E

JsF—Junaluska loam, 25 to 45 percent slopes

Setting

Landform: Mountains
Landform position: Summits, shoulders, and backslopes
Surface features: Outcropping of metasedimentary bedrock in places
Flooding: None
Slope: Steep

Typical Profile

Surface layer:
0 to 5 inches—brown loam

Subsoil:
5 to 16 inches—strong brown channery silty clay loam
16 to 29 inches—yellowish red channery silty clay loam

Underlying material:
29 to 60 inches—multicolored, rippable phyllite and metasandstone bedrock bedded at angles up to 30 degrees

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Available water capacity: Low
Root zone: Moderately deep

Minor Components

- Cataska, Lily, and Tsali soils, which are in similar landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Woodland

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Unsuited
Suitability to pasture: Unsuited
Management concerns: Hazard of erosion

Woodland
Potential productivity: Moderate
Preferred trees to plant: Shortleaf pine
Management concerns: Slope, erodibility, content of rock fragments, and low available water capacity

Urban development
Suitability: Poorly suited
Limitations: Depth to bedrock, slow water movement, low strength, and slope

Recreational development
Suitability: Poorly suited
Limitations: Depth to bedrock, content of gravel, and slope

Interpretive Group

Land capability classification: 7E

JsG—Junaluska loam, 45 to 70 percent slopes

Setting

Landform: Mountains
Landform position: Backslopes
Surface features: Outcropping of metasedimentary bedrock in places
Flooding: None
Slope: Very steep

Typical Profile

Surface layer:
0 to 5 inches—brown loam

Subsoil:
5 to 16 inches—strong brown channery silty clay loam
16 to 29 inches—yellowish red channery silty clay loam

Underlying material:
29 to 60 inches—multicolored, rippable phyllite and metasandstone bedrock bedded at angles up to 30 degrees

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Available water capacity: Low
Root zone: Moderately deep

Minor Components

- Cataska, Lily, and Tsali soils, which are in similar landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Woodland

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Unsuited
Suitability to pasture: Unsuited
Management concerns: Hazard of erosion

Woodland
Potential productivity: Moderate
Preferred trees to plant: Shortleaf pine
Management concerns: Slope, erodibility, content of rock fragments, and low available water capacity

Urban development
Suitability: Poorly suited
Limitations: Depth to bedrock, slow water movement, low strength, and slope

Recreational development
Suitability: Poorly suited
Limitations: Depth to bedrock, content of gravel, and slope

Interpretive Group

Land capability classification: 7E

JtE—Junaluska-Tsali complex, 5 to 25 percent slopes

Setting

Landform: Mountains
Landform position: Summits and shoulders
Flooding: None
Slope: Gently sloping to moderately steep

Composition

Junaluska soils—about 50 percent
Tsali soils—about 50 percent

Typical Profile

Junaluska
Surface layer:
0 to 5 inches—brown loam

Subsoil:
5 to 16 inches—strong brown channery silty clay loam
16 to 29 inches—yellowish red channery silty clay loam

Underlying material:
29 to 60 inches—multicolored, rippable phyllite and metasandstone bedrock bedded at angles up to 30 degrees

Tsali
Surface layer:
0 to 4 inches—strong brown channery loam

Subsoil:
4 to 14 inches—yellowish red clay loam

Underlying material:
14 to 60 inches—multicolored, rippable, interbedded phyllite and metasandstone bedrock bedded at angles up to 60 degrees

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Available water capacity: Junaluska—low; Tsali—very low
Root zone: Junaluska—moderately deep; Tsali—shallow

Minor Components

- Cataska and Lily soils, which are in similar landform positions
- Soils that formed in alluvial sediments along drainageways
- Areas of rock outcrops

Use and Management

Land use: Woodland

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Unsuited
Suitability to pasture: Poorly suited
Management concerns: Hazard of erosion and depth to bedrock

Woodland
Potential productivity: Moderate to low
Preferred trees to plant: Eastern white pine and shortleaf pine
Management concerns: Slope, erodibility, and content of rock fragments

Urban development
Suitability: Poorly suited
Limitations: Depth to bedrock, slope, low strength, and slow water movement

Recreational development
Suitability: Poorly suited
Limitations: Depth to bedrock, content of gravel, and slope

Interpretive Group

Land capability classification: 6E

JtF—Junaluska-Tsali complex, 25 to 45 percent slopes

Setting

Landform: Mountains
Landform position: Shoulders and backslopes
Surface features: Outcropping of metasedimentary bedrock in places
Flooding: None
Slope: Moderately steep or steep

Composition

Junaluska soils—about 50 percent
Tsali soils—about 50 percent

Typical Profile

Junaluska
Surface layer:
0 to 5 inches—brown loam

Subsoil:
5 to 16 inches—strong brown channery silty clay loam
16 to 29 inches—yellowish red channery silty clay loam

Underlying material:
29 to 60 inches—multicolored, rippable phyllite and metasandstone bedrock bedded at angles up to 30 degrees

Tsali
Surface layer:
0 to 4 inches—strong brown channery loam

Subsoil:
4 to 14 inches—yellowish red clay loam

Underlying material:
14 to 60 inches—multicolored, rippable, interbedded phyllite and metasandstone bedrock bedded at angles up to 60 degrees

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Available water capacity: Junaluska—low; Tsali—very low
Root zone: Junaluska—moderately deep; Tsali—shallow

Minor Components

- Cataska and Lily soils, which are in similar landform positions
- Soils that formed in alluvial sediments along drainageways
- Areas of rock outcrops

Use and Management

Land use: Woodland

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Unsuited
Suitability to pasture: Unsuited
Management concerns: Hazard of erosion and depth to bedrock

Woodland
Potential productivity: Moderate or low
Preferred trees to plant: Shortleaf pine
Management concerns: Slope, erodibility, and content of rock fragments

Urban development
Suitability: Poorly suited
Limitations: Depth to bedrock, slope, low strength, and slow water movement

Recreational development
Suitability: Poorly suited
Limitations: Depth to bedrock, content of gravel, and slope

Interpretive Group

Land capability classification: 7E

KtA—Ketona silt loam, 0 to 2 percent slopes, occasionally flooded

Setting

Landform: Flood plains, flats, and depressions
Flooding: Occasional
Slope: Nearly level

Typical Profile

Surface layer:
0 to 7 inches—brown silt loam

Subsoil:
7 to 22 inches—grayish brown silty clay that has dark yellowish brown mottles
22 to 64 inches—gray silty clay that has yellowish brown and light gray mottles

Soil Properties and Qualities

Drainage class: Poorly drained
Seasonal high water table: Apparent; at a depth of 0.5 to 1.0 foot
Permeability: Slow
Available water capacity: Moderate
Root zone: Very deep

Minor Components

- Chenneby and Shellbluff soils, which are in similar landform positions
- Capshaw, Conasauga, Docena, and Whitwell soils, which are in the slightly higher landform positions

Use and Management

Land use: Pasture, woodland, and cropland

Cropland, hayland, and pasture
Suitability to field crops: Poorly suited

Suitability to hay: Poorly suited
Suitability to pasture: Poorly suited
Management concerns: Flooding and wetness

Woodland
Potential productivity: Moderate
Preferred trees to plant: Sweetgum, loblolly pine, and water oak
Management concerns: Ponding, wetness, flooding, low strength, stickiness, and high plasticity index

Urban development
Suitability: Poorly suited
Limitations: Flooding, depth to saturated zone, slow water movement, low strength, and shrink-swell potential

Recreational development
Suitability: Poorly suited
Limitations: Flooding, depth to saturated zone, and slow water movement

Interpretive Group

Land capability classification: 4W

LyE—Lily fine sandy loam, 5 to 25 percent slopes, rubbly

Setting

Landform: Mountains
Landform position: Summits, shoulders, and backslopes
Surface features: Outcropping of metasandstone bedrock in places
Flooding: None
Slope: Gently sloping to moderately steep

Typical Profile

Surface layer:
0 to 5 inches—dark grayish brown fine sandy loam

Subsoil:
5 to 10 inches—yellowish brown sandy loam
10 to 14 inches—yellowish brown sandy clay loam
14 to 32 inches—strong brown sandy clay loam that has pale brown and yellowish red mottles

Substratum:
32 to 39 inches—variegated light yellowish brown, yellowish red, strong brown, and very pale brown loamy sand that has pockets of sandy loam

Underlying material:
39 inches—hard metasandstone bedrock

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderately rapid
Available water capacity: Low
Root zone: Moderately deep

Minor Components

- Cataska, Junaluska, and Tsali soils, which are in similar landform positions
- Soils that have metasandstone bedrock at a depth of more than 40 inches from the surface
- Soils that have metasandstone bedrock at a depth of less than 20 inches from the surface
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Woodland and pasture

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Unsuited
Suitability to pasture: Poorly suited
Management concerns: Hazard of erosion and content of gravel and large stones

Woodland
Potential productivity: Moderate
Preferred trees to plant: Shortleaf pine and white oak
Management concerns: Slope, erodibility, and content of rock fragments

Urban development
Suitability: Poorly suited
Limitations: Depth to bedrock, slope, and seepage

Recreational development
Suitability: Poorly suited
Limitations: Depth to bedrock, content of gravel, and slope

Interpretive Group

Land capability classification: 6S

MnC—Minvale-Urban land complex, 2 to 15 percent slopes

Setting

Landform: Hills and ridges in urban areas
Landform position: Summits, shoulders, backslopes, and footslopes
Flooding: None
Slope: Gently sloping or strongly sloping

Composition

Minvale soils—about 60 percent
Urban land soils—about 40 percent

Typical Profile

Minvale
Surface layer:
0 to 5 inches—dark grayish brown gravelly silt loam

Subsoil:
5 to 12 inches—yellowish brown gravelly silty clay loam
12 to 40 inches—yellowish brown gravelly silty clay loam that has pale brown mottles
40 to 60 inches—yellowish brown gravelly silty clay that has yellowish red mottles

Urban land

Urban land consists of areas that have been altered by cutting, filling, and shaping. Schools, parking lots, streets, commercial buildings, residential dwellings, or other structures are located in these areas.

Soil Properties and Qualities

Drainage class: Minvale—well drained
Seasonal high water table: Minvale—more than 6.0 feet
Permeability: Minvale—moderate
Available water capacity: Minvale—moderate
Root zone: Minvale—very deep

Minor Components

- Bodine, Fullerton, Holston, Shack, and Waynesboro soils, which are in similar landform positions
- Wax soils, which are in the slightly lower landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Minvale—lawns, gardens, and idle acres; Urban land—buildings, streets, parking lots, sidewalks, and other structures

Urban development
Suitability: Moderately suited
Limitations: Slow water movement and slope

Recreational development
Suitability: Moderately suited
Limitations: Slope and content of gravel

Interpretive Group

Land capability classification: Minvale—4E; Urban land—none assigned

MoF—Montevallo very channery loam, 30 to 60 percent slopes

Setting

Landform: Hills and ridges
Landform position: Summits, shoulders, and backslopes
Surface features: Shale and dissected quartzite fragments on the surface
Flooding: None
Slope: Steep

Typical Profile

Surface layer:
0 to 5 inches—dark yellowish brown very channery loam

Subsoil:
5 to 10 inches—yellowish brown very channery loam

Underlying material:
10 to 60 inches—multicolored, rippable shale bedrock bedded at angles up to 70 degrees

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Available water capacity: Very low
Root zone: Shallow

Minor Components

- Enders and Townley soils, which are in similar landform positions
- Soils that have sandstone fragments in the upper part and interbedded sandstone and shale in the lower part
- Soils that have bedrock that is dominantly sandstone
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Woodland

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Unsuited
Suitability to pasture: Unsuited
Management concerns: Hazard of erosion, depth to bedrock, content of gravel, and low available water capacity

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and shortleaf pine
Management concerns: Slope, erodibility, content of rock fragments, low available water capacity, and depth to bedrock

Urban development
Suitability: Poorly suited
Limitations: Depth to bedrock and slope

Recreational development
Suitability: Poorly suited
Limitations: Depth to bedrock, slope, and content of gravel

Interpretive Group

Land capability classification: 7E

MtD—Montevallo-Townley complex, 6 to 15 percent slopes

Setting

Landform: Hills and ridges
Landform position: Summits, shoulders, backslopes, and footslopes
Flooding: None
Slope: Strongly sloping

Composition

Montevallo soils—about 65 percent
Townley soils—about 35 percent

Typical Profile

Montevallo
Surface layer:
0 to 5 inches—dark yellowish brown very channery loam

Subsoil:
5 to 10 inches—yellowish brown very channery loam

Underlying material:
10 to 60 inches—multicolored, rippable shale bedrock bedded at angles up to 70 degrees

Townley
Surface layer:
0 to 5 inches—yellowish brown silt loam

Subsoil:
5 to 16 inches—strong brown silty clay that has brownish yellow mottles
16 to 27 inches—strong brown channery silty clay loam that has red and brownish yellow mottles

Underlying material:
27 to 60 inches—multicolored, rippable shale bedrock bedded at angles up to 35 degrees

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Montevallo—moderate; Townley—slow
Available water capacity: Montevallo—very low; Townley—low
Root zone: Montevallo—shallow; Townley—moderately deep

Minor Components

- Albertville, Enders, and Sipsey soils, which are in similar landform positions
- Conasauga and Docena soils, which are in the slightly lower landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Pasture, woodland, and hayland

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Poorly suited
Suitability to pasture: Poorly suited
Management concerns: Hazard of erosion, depth to bedrock, content of gravel, and low available water capacity

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and shortleaf pine
Management concerns: Slope, erodibility, content of rock fragments, low strength, low available water capacity, and depth to bedrock

Urban development
Suitability: Poorly suited
Limitations: Depth to bedrock, shrink-swell potential, slow water movement, low strength, and slope

Recreational development
Suitability: Moderately suited
Limitations: Depth to bedrock, content of gravel, and slope

Interpretive Group

Land capability classification: 6E

MtE—Montevallo-Townley complex, 15 to 30 percent slopes

Setting

Landform: Hills
Landform position: Summits, shoulders, and backslopes
Flooding: None
Slope: Moderately steep
Surface features: Shale and quartzite fragments on the surface

Composition

Montevallo soils—65 percent
Townley soils—35 percent

Typical Profile

Montevallo
Surface layer:
0 to 5 inches—dark yellowish brown very channery loam

Subsoil:
5 to 10 inches—yellowish brown very channery loam

Underlying material:
10 to 60 inches—multicolored, rippable shale bedrock bedded at angles up to 70 degrees

Townley
Surface layer:
0 to 5 inches—yellowish brown silt loam

Subsoil:
5 to 16 inches—strong brown silty clay that has brownish yellow mottles
16 to 27 inches—strong brown channery silty clay loam that has red and brownish yellow mottles

Underlying material:
27 to 60 inches—multicolored, rippable shale bedrock bedded at angles up to 35 degrees

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Montevallo—moderate; Townley—slow
Available water capacity: Montevallo—very low; Townley—low
Root zone: Montevallo—shallow; Townley—moderately deep

Minor Components

- Albertville, Enders, and Sipsey soils, which are in similar landform positions
- Conasauga and Docena soils, which are in the slightly lower landform positions

- Soils that have bedrock that is dominantly sandstone
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Woodland and pasture

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Unsuited
Suitability to pasture: Poorly suited
Management concerns: Hazard of erosion, depth to bedrock, content of gravel, and low available water capacity

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and shortleaf pine
Management concerns: Slope, erodibility, content of rock fragments, low strength, low available water capacity, and depth to bedrock

Urban development
Suitability: Poorly suited
Limitations: Depth to bedrock, slope, slow water movement, shrink-swell potential, and low strength

Recreational development
Suitability: Poorly suited
Limitations: Depth to bedrock, content of gravel, slow water movement, and slope

Interpretive Group

Land capability classification: 7E

MuE—Montevallo-Urban land complex, 10 to 25 percent slopes

Setting

Landform: Hills in urban areas
Landform position: Summits, shoulders, and backslopes
Flooding: None
Slope: Strongly sloping to moderately steep

Composition

Montevallo soils—about 60 percent
Urban soils—about 40 percent

Typical Profile

Montevallo
Surface layer:
0 to 5 inches—dark yellowish brown very channery loam

Subsoil:
5 to 10 inches—yellowish brown very channery loam

Underlying material:
10 to 60 inches—multicolored, rippable shale bedrock bedded at angles up to 70 degrees

Urban land

Urban land consists of areas that have been altered by cutting, filling, and shaping. Schools, parking lots, streets, commercial buildings, residential dwellings, or other structures are located in these areas.

Soil Properties and Qualities

Drainage class: Montevallo—well drained
Seasonal high water table: Montevallo—more than 6.0 feet
Permeability: Montevallo—moderate
Available water capacity: Montevallo—very low
Root zone: Montevallo—shallow

Minor Components

- Albertville, Cunningham, and Townley soils, which are in similar landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Montevallo—lawns, gardens, and idle areas; Urban land—buildings, streets, parking lots, sidewalks, and other structures

Urban development
Suitability: Poorly suited
Limitations: Depth to bedrock and slope

Recreational development
Suitability: Poorly suited
Limitations: Depth to bedrock, content of gravel, and slope

Interpretive Group

Land capability classification: Montevallo—7E; Urban land—none assigned

NaD—Nauvoo fine sandy loam, 6 to 15 percent slopes

Setting

Landform: Hills
Landform position: Summits, backslopes, and footslopes
Flooding: None
Slope: Strongly sloping

Typical Profile

Surface layer:
0 to 5 inches—brown fine sandy loam

Subsurface layer:
5 to 12 inches—yellowish brown fine sandy loam

Subsoil:
12 to 29 inches—yellowish red clay loam that has brownish yellow mottles
29 to 56 inches—yellowish red sandy clay loam that has red and brownish yellow mottles

Underlying material:
56 to 60 inches—brownish yellow, rippable sandstone bedrock

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet

Permeability: Moderate
Available water capacity: Moderate
Root zone: Deep

Minor Components

- Allen, Holston, Panama, and Sipsey soils, which are in similar landform positions
- Enders, Montevallo, and Townley soils near drainage areas
- Soils that have outcroppings of sandstone

Use and Management

Land use: Woodland and pasture

Cropland, hayland, and pasture
Suitability to field crops: Poorly suited
Suitability to hay: Moderately suited
Suitability to pasture: Moderately suited
Management concerns: Erosion hazard

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine, short leaf pine, and yellow-poplar
Management concerns: Slope and erodibility

Urban development
Suitability: Moderately suited
Limitations: Depth to bedrock, slow water movement, low strength, and slope

Recreational development
Suitability: Moderately suited
Limitations: Slope

Interpretive Group

Land capability classification: 4E

NaE—Nauvoo fine sandy loam, 15 to 35 percent slopes

Setting

Landform: Hills
Landform position: Summits and backslopes
Flooding: None
Slope: Moderately steep or steep

Typical Profile

Surface layer:
0 to 5 inches—brown fine sandy loam

Subsurface layer:
5 to 12 inches—yellowish brown fine sandy loam

Subsoil:
12 to 29 inches—yellowish red clay loam that has brownish yellow mottles

Substratum:
29 to 56 inches—yellowish red sandy clay loam that has red and brownish yellow mottles

Underlying material:
56 to 60 inches—brownish yellow, rippable sandstone bedrock

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Available water capacity: Moderate
Root zone: Deep

Minor Components

- Allen, Holston, Panama, and Sipsey soils, which are in similar landform positions
- Enders, Montevallo, and Townley soils near drainage areas
- Soils that have outcroppings of sandstone

Use and Management

Land use: Woodland

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Poorly suited
Suitability to pasture: Poorly suited
Management concerns: Erosion hazard

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine, short leaf pine, and yellow-poplar
Management concerns: Slope, erodibility, and low available water capacity

Urban development
Suitability: Poorly suited
Limitations: Slope, depth to bedrock, slow water movement, and low strength

Recreational development
Suitability: Poorly suited
Limitations: Slope

Interpretive Group

Land capability classification: 7E

NeB—Nella gravelly fine sandy loam, 2 to 6 percent slopes

Setting

Landform: Hills and ridges
Landform position: Footslopes
Flooding: None
Slope: Gently sloping

Typical Profile

Surface layer:
0 to 5 inches—brown gravelly fine sandy loam

Subsurface layer:
5 to 10 inches—yellowish brown gravelly fine sandy loam

Subsoil:
10 to 13 inches—brown gravelly sandy loam
13 to 38 inches—yellowish red gravelly clay loam
38 to 48 inches—dark red very gravelly sandy clay loam that has reddish yellow mottles
48 to 58 inches—red gravelly sandy clay loam that has reddish yellow mottles
58 to 65 inches—red gravelly clay loam that has light yellowish brown and reddish brown mottles

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Available water capacity: Moderate
Root zone: Very deep

Minor Components

- Allen, Enders, Holston, Nauvoo, Sipsey, and Townley soils, which are in similar landform positions

Use and Management

Land use: Pasture, woodland, and hayland

Cropland, hayland, and pasture
Suitability to field crops: Moderately suited
Suitability to hay: Well suited
Suitability to pasture: Well suited
Management concerns: Hazard of erosion

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine, shortleaf pine, and yellow-poplar
Management concerns: Erodibility and content of rock fragments

Urban development
Suitability: Moderately suited
Limitations: Slow water movement

Recreational development
Suitability: Well suited
Limitations: Content of gravel and slope

Interpretive Group

Land capability classification: 2E

NeD—Nella gravelly fine sandy loam, 6 to 15 percent slopes

Setting

Landform: Hills and ridges
Landform position: Backslopes and footslopes

Flooding: None
Slope: Strongly sloping

Typical Profile

Surface layer:
0 to 5 inches—brown gravelly fine sandy loam

Subsurface layer:
5 to 10 inches—yellowish brown gravelly fine sandy loam

Subsoil:
10 to 13 inches—brown gravelly sandy loam
13 to 38 inches—yellowish red gravelly clay loam
38 to 48 inches—dark red very gravelly sandy clay loam that has reddish yellow mottles
48 to 58 inches—red gravelly sandy clay loam that has reddish yellow mottles
58 to 65 inches—red gravelly clay loam that has light yellowish brown and reddish brown mottles

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Available water capacity: Moderate
Root zone: Very deep

Minor Components

- Allen, Enders, Holston, Nauvoo, Sipsey, and Townley soils, which are in similar landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Woodland, pasture, and hayland

Cropland, hayland, and pasture
Suitability to field crops: Poorly suited
Suitability to hay: Moderately suited
Suitability to pasture: Moderately suited
Management concerns: Hazard of erosion

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine, shortleaf pine, and yellow-poplar
Management concerns: Slope, erodibility, and content of rock fragments

Urban development
Suitability: Moderately suited
Limitations: Slope and slow water movement

Recreational development
Suitability: Moderately suited
Limitations: Content of gravel and slope

Interpretive Group

Land capability classification: 4E

NeE—Nella gravelly fine sandy loam, 15 to 30 percent slopes

Setting

Landform: Hills and ridges
Landform position: Backslopes and footslopes
Flooding: None
Slope: Moderately steep

Typical Profile

Surface layer:
0 to 5 inches—brown gravelly fine sandy loam

Subsurface layer:
5 to 10 inches—yellowish brown gravelly fine sandy loam

Subsoil:
10 to 13 inches—brown gravelly sandy loam
13 to 38 inches—yellowish red gravelly clay loam
38 to 48 inches—dark red very gravelly sandy clay loam that has reddish yellow mottles
48 to 58 inches—red gravelly sandy clay loam that has reddish yellow mottles
58 to 65 inches—red gravelly clay loam that has light yellowish brown and reddish brown mottles

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Available water capacity: Moderate
Root zone: Very deep

Minor Components

- Allen, Enders, Hector, Holston, Panama, Sipsey, and Townley soils, which are in similar landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Woodland and pasture

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Poorly suited
Suitability to pasture: Poorly suited
Management concerns: Hazard of erosion

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and shortleaf pine
Management concerns: Slope, erodibility, low available water capacity, and content of rock fragments

Urban development
Suitability: Poorly suited
Limitations: Slope and slow water movement

Recreational development
Suitability: Poorly suited
Limitations: Content of gravel and slope

Interpretive Group

Land capability classification: 6E

NeF—Nella gravelly fine sandy loam, 30 to 60 percent slopes

Setting

Landform: Hills
Landform position: Backslopes
Flooding: None
Slope: Steep

Typical Profile

Surface layer:
0 to 5 inches—brown gravelly fine sandy loam

Subsurface layer:
5 to 10 inches—yellowish brown gravelly fine sandy loam

Subsoil:
10 to 13 inches—brown gravelly sandy loam
13 to 38 inches—yellowish red gravelly clay loam
38 to 48 inches—dark red very gravelly sandy clay loam that has reddish yellow mottles
48 to 58 inches—red gravelly sandy clay loam that has reddish yellow mottles
58 to 65 inches—red gravelly clay loam that has light yellowish brown and reddish brown mottles

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Available water capacity: Moderate
Root zone: Very deep

Minor Components

- Allen, Enders, Hector, Panama, Sipsey, and Townley soils, which are in similar landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Woodland

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Unsuited
Suitability to pasture: Unsuited
Management concerns: Hazard of erosion

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and shortleaf pine
Management concerns: Slope, erodibility, content of rock fragments, and low available water capacity

Urban development
Suitability: Poorly suited
Limitations: Slope and slow water movement

Recreational development
Suitability: Poorly suited
Limitations: Content of gravel and slope

Interpretive Group

Land capability classification: 7E

NtF—Nella-Hector-Townley complex, 30 to 60 percent slopes, rubbly

Setting

Landform: Ridges
Landform position: Backslopes
Flooding: None
Slope: Steep

Composition

Nella soils—about 40 percent
Hector soils—about 35 percent
Townley—about 25 percent

Typical Profile

Nella
Surface layer:
0 to 5 inches—brown gravelly fine sandy loam

Subsurface layer:
5 to 10 inches—yellowish brown gravelly fine sandy loam

Subsoil:
10 to 13 inches—brown gravelly sandy loam
13 to 38 inches—yellowish red gravelly clay loam
38 to 48 inches—dark red very gravelly sandy clay loam that has reddish yellow mottles
48 to 58 inches—red gravelly sandy clay loam that has reddish yellow mottles
58 to 65 inches—red gravelly clay loam that has light yellowish brown and reddish brown mottles

Hector
Surface layer:
0 to 4 inches—very dark grayish brown very gravelly sandy loam

Subsurface layer:
4 to 11 inches—brown gravelly sandy loam

Subsoil:
11 to 19 inches—dark yellowish brown gravelly sandy loam

Underlying material:
19 inches—hard sandstone bedrock

Townley
Surface layer:
0 to 5 inches—yellowish brown silt loam

Subsoil:
5 to 16 inches—strong brown silty clay that has brownish yellow mottles
16 to 27 inches—strong brown channery silty clay loam that has red and brownish yellow mottles

Underlying material:
27 to 60 inches—multicolored, rippable shale bedrock bedded at angles up to 35 degrees

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Nella—moderate; Hector—moderately rapid; Townley—slow
Available water capacity: Nella—moderate; Hector and Townley—very low
Root zone: Nella—very deep; Hector—shallow; Townley—moderately deep

Minor Components

- Enders and Panama soils, which are in similar landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Woodland

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Unsuited
Suitability to pasture: Unsuited
Management concerns: Erosion hazard, depth to bedrock, content of gravel and large stones, low available water capacity, and slope

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and shortleaf pine
Management concerns: Slope, erodibility, low available water capacity, content of rock fragments, stickiness, high plasticity index, and low strength

Urban development
Suitability: Poorly suited
Limitations: Depth to bedrock, slope, shrink-swell potential, low strength, and slow water movement

Recreational development
Suitability: Poorly suited
Limitations: Depth to bedrock, content of gravel and large stones, and slope

Interpretive Group

Land capability classification: 7E

PaE—Panama very gravelly fine sandy loam, 15 to 30 percent slopes

Setting

Landform: Hills and ridges
Landform position: Footslopes
Flooding: None
Slope: Moderately steep

Typical Profile

Surface layer:
0 to 5 inches—dark yellowish brown very gravelly fine sandy loam

Subsurface layer:
5 to 13 inches—brown gravelly fine sandy loam
13 to 29 inches—reddish brown extremely gravelly fine sandy loam

Subsoil:
29 to 55 inches—reddish brown very gravelly sandy clay loam
55 to 80 inches—reddish brown channery silty clay loam that has red mottles

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderately slow
Available water capacity: Moderate
Root zone: Very deep

Minor Components

- Albertville, Enders, Montevallo, and Townley soils, which are in the slightly lower landform positions
- Sipsey soils, which are in similar landform positions
- Soils that have less than a 35 percent sandstone fragment content in the upper part

Use and Management

Land use: Pasture and woodland

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Unsuited
Suitability to pasture: Poorly suited
Management concerns: Erosion, content of gravel and large stones, and slope

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and shortleaf pine
Management concerns: Slope, erodibility, low available water capacity, and content of rock fragments

Urban development
Suitability: Poorly suited
Limitations: Slope and slow water movement

Recreational development
Suitability: Poorly suited
Limitations: Content of gravel and large stones and slope

Interpretive Group

Land capability classification: 7E

PaF—Panama very gravelly fine sandy loam, 30 to 60 percent slopes

Setting

Landform: Hills and ridges
Landform position: Summits, backslopes, and footslopes
Flooding: None
Slope: Steep

Typical Profile

Surface layer:
0 to 5 inches—dark yellowish brown very gravelly fine sandy loam

Subsurface layer:
5 to 13 inches—brown gravelly fine sandy loam
13 to 29 inches—reddish brown extremely gravelly fine sandy loam

Subsoil:
29 to 55 inches—reddish brown very gravelly sandy clay loam
55 to 80 inches—reddish brown channery silty clay loam that has red mottles

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderately slow
Available water capacity: Moderate
Root zone: Very deep

Minor Components

- Albertville, Enders, Townley, and Montevallo soils, which are in the slightly lower landform positions
- Sipsey soils, which are in similar landform positions
- Soils that have less than a 35 percent sandstone fragment content in the upper part

Use and Management

Land use: Woodland

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Unsuited
Suitability to pasture: Unsuited
Management concerns: Erosion, content of gravel and large stones, and slope

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and shortleaf pine
Management concerns: Slope, erodibility, low available water capacity, and content of rock fragments

Urban development
Suitability: Poorly suited
Limitations: Slope and slow water movement

Recreational development
Suitability: Poorly suited
Limitations: Content of gravel and large stones and slope

Interpretive Group

Land capability classification: 7E

PcD—Pigeonroost-Cheoah complex, 5 to 15 percent slopes

Setting

Landform: Mountains
Landform position: Summits, backslopes, and footslopes
Flooding: None
Slope: Gently sloping or strongly sloping

Composition

Pigeonroost soils—about 50 percent
Cheoah soils—about 50 percent

Typical Profile

Pigeonroost
Surface layer:
0 to 6 inches—dark brown loam

Subsoil:
6 to 12 inches—dark yellowish brown fine sandy loam
12 to 34 inches—dark yellowish brown gravelly sandy clay loam

Underlying material:
34 to 44 inches—multicolored, rippable metamorphic bedrock grading to hard bedrock

Cheoah
Surface layer:
0 to 7 inches—black loam

Subsurface layer:
7 to 12 inches—very dark grayish brown loam

Subsoil:
12 to 32 inches—dark yellowish brown loam that has very dark grayish brown mottles
32 to 54 inches—dark yellowish brown loam that has grayish brown mottles

Substratum:
54 to 59 inches—dark yellowish brown loam that has very pale brown mottles

Underlying material:
59 to 65 inches—multicolored, rippable phyllite and metasandstone bedrock

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Pigeonroost—moderate; Cheoah—moderately rapid

Available water capacity: Pigeonroost—moderate; Cheoah—low
Root zone: Pigeonroost—moderately deep; Cheoah—deep

Minor Components

- Cataska, Edneytown, Junaluska, Lily, and Tsali soils, which are in similar landform positions
- Areas of rock outcrops

Use and Management

Land use: Woodland and pasture

Cropland, hayland, and pasture
Suitability to field crops: Poorly suited
Suitability to hay: Moderately suited
Suitability to pasture: Moderately suited
Management concerns: Hazard of erosion

Woodland
Potential productivity: Moderate
Preferred trees to plant: Northern red oak and yellow-poplar
Management concerns: Slope, erodibility, and content of rock fragments

Urban development
Suitability: Moderately suited
Limitations: Depth to bedrock, slope, and slow water movement

Recreational development
Suitability: Moderately suited
Limitations: Depth to bedrock, content of gravel, and slope

Interpretive Group

Land capability classification: 4E

Qu—Pits, quarries

Typical Profile

This map unit consists of deep, open pits and spoil piles from active or abandoned limestone, cherty limestone, and shaly limestone mining operations. Some pits are filled with water from surface or subsurface sources. This unit also includes impoundments for storing wastewater from mining or other industrial uses. Areas adjacent to pits have been modified through cutting, filling, and shaping. Some natural soil layers may exist in these areas.

Rk—Rock outcrop

Setting

Landform: Ridges, hills, and mountains

Typical Profile

This map unit consists of outcrops of bedrock and detached bedrock that cover almost the entire surface. A few pockets of shallow soils can be found between outcrops. The exposed bedrock ranges from 5 inches to 25 feet in length.

SaA—Sequatchie loam, 0 to 2 percent slopes, occasionally flooded

Setting

Landform: Stream terraces and drainageways
Flooding: Occasional
Slope: Nearly level

Typical Profile

Surface layer:
0 to 9 inches—dark brown loam

Subsurface layer:
9 to 15 inches—dark yellowish brown loam that has yellowish brown mottles

Subsoil:
15 to 26 inches—yellowish brown clay loam
26 to 34 inches—yellowish brown clay loam that has red and light yellowish brown mottles
34 to 43 inches—strong brown clay loam that has brownish yellow and light yellowish brown mottles
43 to 55 inches—variegated red, strong brown, brownish yellow, and light yellowish brown clay loam
55 to 60 inches—variegated strong brown, very pale brown, and light gray sandy clay loam

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Available water capacity: Moderate
Root zone: Very deep

Minor Components

- Shellbluff and Whitwell soils, which are in similar landform positions
- Soils that have a lighter surface color than the Sequatchie soil
- Soils that have red colors throughout

Use and Management

Land use: Cropland, pasture, hayland, and woodland

Cropland, hayland, and pasture
Suitability to field crops: Well suited
Suitability to hay: Well suited
Suitability to pasture: Well suited
Management concerns: Flooding

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine, yellow-poplar, and black walnut
Management concerns: Flooding and low strength

Urban development
Suitability: Poorly suited
Limitations: Flooding, slow water movement, seepage, and low strength

Recreational development
Suitability: Moderately suited
Limitations: Flooding

Interpretive Group

Land capability classification: 2W

SaB—Sequatchie loam, 2 to 6 percent slopes

Setting

Landform: Stream terraces and low hills
Landform position: Toeslopes of low hills
Flooding: None
Slope: Gently sloping

Typical Profile

Surface layer:
0 to 9 inches—dark brown loam

Subsurface layer:
9 to 15 inches—dark yellowish brown loam that has yellowish brown mottles

Subsoil:
15 to 26 inches—yellowish brown clay loam
26 to 34 inches—yellowish brown clay loam that has red and light yellowish brown mottles
34 to 43 inches—strong brown clay loam that has brownish yellow and light yellowish brown mottles
43 to 55 inches—variegated red, strong brown, brownish yellow, and light yellowish brown clay loam
55 to 60 inches—variegated strong brown, very pale brown, and light gray sandy clay loam

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Available water capacity: Moderate
Root zone: Very deep

Minor Components

- Holston, Docena, and Whitwell soils, which are in similar landform positions
- Soils that have a lighter surface color than the Sequatchie soil
- Soils that have red colors throughout

Use and Management

Land use: Cropland, hayland, pasture, and woodland

Cropland, hayland, and pasture
Suitability to field crops: Well suited
Suitability to hay: Well suited
Suitability to pasture: Well suited
Management concerns: Hazard of erosion

Woodland
Potential productivity: Moderate
Preferred trees to plant: Yellow-poplar, black walnut, and loblolly pine
Management concerns: Slope, erodibility, and low strength

Urban development
Suitability: Moderately suited
Limitations: Slow water movement, seepage, and low strength

Recreational development
Suitability: Moderately suited
Limitations: Slope

Interpretive Group

Land capability classification: 2E

ScB—Shack gravelly silt loam, 2 to 6 percent slopes

Setting

Landform: Ridges and low hills
Landform position: Summits, backslopes, and footslopes
Flooding: None
Slope: Gently sloping

Typical Profile

Surface layer:
0 to 6 inches—brown gravelly silt loam

Subsoil:
6 to 15 inches—light yellowish brown gravelly silt loam
15 to 22 inches—yellowish brown gravelly silty clay loam
22 to 29 inches—variegated yellowish brown, light gray, and yellowish red gravelly silty clay loam
29 to 45 inches—strong brown gravelly silty clay loam that has yellowish red mottles
45 to 60 inches—red gravelly silty clay loam that has strong brown mottles

Soil Properties and Qualities

Drainage class: Moderately well drained
Seasonal high water table: Perched; at a depth of 1.5 to 2.5 feet
Permeability: Moderately slow
Available water capacity: Moderate
Root zone: Moderately deep to a dense and brittle layer that is somewhat restrictive

Minor Components

- Bodine, Capshaw, Conasauga, Docena, Fullerton, Holston, and Waynesboro soils, which are in similar landform positions
- Guthrie and Wax soils, which are in the slightly lower landform positions

Use and Management

Land use: Pasture, hayland, cropland, and woodland

Cropland, hayland, and pasture
Suitability to field crops: Well suited
Suitability to hay: Well suited

Suitability to pasture: Well suited
Management concerns: Hazard of erosion

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and shortleaf pine
Management concerns: Slope, erodibility, wetness, and content of rock fragments

Urban development
Suitability: Poorly suited
Limitations: Slow water movement, depth to cemented pan, and depth to saturated zone

Recreational development
Suitability: Moderately suited
Limitations: Content of gravel, depth to saturated zone, depth to cemented pan, slow water movement, and slope

Interpretive Group

Land capability classification: 2E

SdD—Shack-Minvale-Bodine complex, 6 to 15 percent slopes

Setting

Landform: Ridges and low hills
Landform position: Summits, backslopes, and footslopes
Flooding: None
Slope: Strongly sloping

Composition

Shack soils—about 35 percent
Minvale soils—about 30 percent
Bodine soils—about 25 percent
Included soils—about 10 percent

Typical Profile

Shack
Surface layer:
0 to 6 inches—brown gravelly silt loam

Subsoil:
6 to 15 inches—light yellowish brown gravelly silt loam
15 to 22 inches—yellowish brown gravelly silty clay loam
22 to 29 inches—variegated yellowish brown, light gray, and yellowish red gravelly silty clay loam
29 to 45 inches—strong brown gravelly silty clay loam that has yellowish red mottles
45 to 60 inches—red gravelly silty clay loam that has strong brown mottles

Minvale
Surface layer:
0 to 5 inches—dark grayish brown gravelly silt loam

Subsoil:
5 to 12 inches—yellowish brown gravelly silty clay loam

12 to 40 inches—yellowish brown gravelly silty clay loam that has pale brown mottles
40 to 60 inches—yellowish brown gravelly silty clay that has yellowish red mottles

Bodine
Surface layer:
0 to 4 inches—pale brown very gravelly silt loam

Subsurface layer:
4 to 16 inches—light yellowish brown very gravelly silt loam

Subsoil:
16 to 26 inches—light brown extremely gravelly silty clay loam
26 to 60 inches—reddish yellow extremely gravelly clay loam that has very pale brown and yellowish red mottles

Soil Properties and Qualities

Drainage class: Shack—moderately well drained; Minvale—well drained; Bodine—somewhat excessively drained
Seasonal high water table: Shack—perched; at a depth of 1.5 to 2.5 feet; Minvale and Bodine—more than 6.0 feet
Permeability: Shack—moderately slow; Minvale—moderate; Bodine—moderately rapid
Available water capacity: Shack and Minvale—moderate; Bodine—low
Root zone: Shack—moderately deep to a dense and brittle layer that is somewhat restrictive; Minvale and Bodine—very deep

Minor Components

- Fullerton, Holston, and Waynesboro soils, which are in similar landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Hayland, pasture, and woodland

Cropland, hayland, and pasture
Suitability to field crops: Poorly suited
Suitability to hay: Moderately suited
Suitability to pasture: Moderately suited
Management concerns: Hazard of erosion and content of gravel and large stones

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and shortleaf pine
Management concerns: Slope, erodibility, wetness, content of rock fragments, and low strength

Urban development
Suitability: Moderately suited
Limitations: Depth to cemented pan, depth to saturated zone, slow water movement, and slope

Recreational development
Suitability: Moderately suited
Limitations: Content of gravel and large stones, slope, depth to saturated zone, depth to cemented pan, and slow water movement

Interpretive Group

Land capability classification: Shack and Minvale—4E; Bodine—6S

SdE—Shack-Minvale-Bodine complex, 15 to 30 percent slopes

Setting

Landform: Ridges and low hills
Landform position: Backslopes
Flooding: None
Slope: Moderately steep

Composition

Shack soils—about 40 percent
Minvale soils—about 30 percent
Bodine soils—about 20 percent
Included soils—about 10 percent

Typical Profile

Shack
Surface layer:
0 to 6 inches—brown gravelly silt loam

Subsoil:
6 to 15 inches—light yellowish brown gravelly silt loam
15 to 22 inches—yellowish brown gravelly silty clay loam
22 to 29 inches—variegated yellowish brown, light gray, and yellowish red gravelly silty clay loam
29 to 45 inches—strong brown gravelly silty clay loam that has yellowish red mottles
45 to 60 inches—red gravelly silty clay loam that has strong brown mottles

Minvale
Surface layer:
0 to 5 inches—dark grayish brown gravelly silt loam

Subsoil:
5 to 12 inches—yellowish brown gravelly silty clay loam
12 to 40 inches—yellowish brown gravelly silty clay loam that has pale brown mottles
40 to 60 inches—yellowish brown gravelly silty clay that has yellowish red mottles

Bodine
Surface layer:
0 to 4 inches—pale brown very gravelly silt loam

Subsurface layer:
4 to 16 inches—light yellowish brown very gravelly silt loam

Subsoil:
16 to 26 inches—light brown extremely gravelly silty clay loam
26 to 60 inches—reddish yellow extremely gravelly clay loam that has very pale brown and yellowish red mottles

Soil Properties and Qualities

Drainage class: Shack—moderately well drained; Minvale—well drained; Bodine—somewhat excessively drained
Seasonal high water table: Shack—perched; at a depth of 1.5 to 2.5 feet; Minvale and Bodine—more than 6.0 feet
Permeability: Shack—moderately slow; Minvale—moderate; Bodine—moderately rapid
Available water capacity: Shack and Minvale—moderate; Bodine—low

Root zone: Shack—moderately deep to a dense and brittle layer that is somewhat restrictive; Minvale and Bodine—very deep

Minor Components

- Fullerton, Hanceville, and Waynesboro soils, which are on similar landforms
- Soils that have small to medium chert fragments on the surface
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Pasture and woodland

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Unsuited
Suitability to pasture: Poorly suited
Management concerns: Hazard of erosion and content of gravel and large stones

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and shortleaf pine
Management concerns: Slope, erodibility, wetness, content of rock fragments, low available water capacity, and low strength

Urban development
Suitability: Poorly suited
Limitations: Depth to cemented pan, depth to saturated zone, slow water movement, and slope

Recreational development
Suitability: Poorly suited
Limitations: Content of gravel and large stones, slope, depth to saturated zone, depth to cemented pan, and slow water movement

Interpretive Group

Land capability classification: Shack and Minvale—6E; Bodine—7S

SeA—Shellbluff silt loam, 0 to 2 percent slopes, occasionally flooded

Setting

Landform: Flood plains
Flooding: Occasional
Slope: Nearly level

Typical Profile

Surface layer:
0 to 7 inches—brown silt loam

Subsurface layer:
7 to 19 inches—brown loam

Subsoil:
19 to 29 inches—dark yellowish brown loam
29 to 41 inches—dark yellowish brown silty clay loam
41 to 50 inches—dark yellowish brown silt loam that has yellowish brown mottles

50 to 64 inches—dark yellowish brown fine sandy loam that has light olive brown and strong brown mottles
64 to 80 inches—dark yellowish brown fine sandy loam that has very dark grayish brown mottles

Soil Properties and Qualities

Drainage class: Well drained
Seasonal high water table: Apparent; at a depth of 2.5 to 6.0 feet
Permeability: Moderate
Available water capacity: Moderate
Root zone: Very deep

Minor Components

- Chenneby, Sequatchie, and Whitwell soils, which are in similar landform positions
- Arkabutla and Ketona soil, which are in the slightly lower landform positions

Use and Management

Land use: Cropland, pasture, hayland, and woodland

Cropland, hayland, and pasture
Suitability to field crops: Well suited
Suitability to hay: Well suited
Suitability to pasture: Well suited
Management concerns: Flooding

Woodland
Potential productivity: High
Preferred trees to plant: Loblolly pine, black walnut, and yellow-poplar
Management concerns: Flooding and low strength

Urban development
Suitability: Poorly suited
Limitations: Flooding, slow water movement, depth to saturated zone, and low strength

Recreational development
Suitability: Moderately suited
Limitations: Flooding

Interpretive Group

Land capability classification: 2W

ShC—Shelocta channery loam, 2 to 15 percent slopes

Setting

Landform: Mountains
Landform position: Footslopes
Flooding: None
Slope: Gently sloping or strongly sloping

Typical Profile

Surface layer:
0 to 4 inches—dark yellowish brown channery loam

Subsoil:
4 to 30 inches—strong brown channery silty clay loam
30 to 45 inches—strong brown silty clay loam

Substratum:
45 to 52 inches—variegated yellowish brown and brownish yellow channery loam
52 to 60 inches—variegated yellowish brown and brownish yellow very channery loam

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Available water capacity: Moderate
Root zone: Very deep

Minor Components

- Craigsville soils, which are in the slightly lower landform positions
- Junaluska and Tsali soils, which are in the slightly higher landform positions
- Soils that have slopes greater than 15 percent

Use and Management

Land use: Woodland

Cropland, hayland, and pasture
Suitability to field crops: Moderately suited
Suitability to hay: Moderately suited
Suitability to pasture: Moderately suited
Management concerns: Erosion and slope

Woodland
Potential productivity: Moderate
Preferred trees to plant: Eastern white pine, northern red oak, shortleaf pine, white ash, white oak, and yellow-poplar
Management concerns: Slope, erodibility, and content of rock fragments

Urban development
Suitability: Moderately suited
Limitations: Slow water movement, seepage, low strength, and slope

Recreational development
Suitability: Moderately suited
Limitations: Content of gravel and slope

Interpretive Group

Land capability classification: 4E

SpD—Sipsey fine sandy loam, 4 to 15 percent slopes

Setting

Landform: Hills and ridges
Landform position: Backslopes and footslopes
Flooding: None
Slope: Gently sloping or strongly sloping

Typical Profile

Surface layer:
0 to 7 inches—yellowish brown fine sandy loam

Subsoil:
7 to 16 inches—brownish yellow fine sandy loam

16 to 34 inches—yellowish red sandy clay loam that has strong brown mottles

Underlying material:
34 to 60 inches—multicolored, highly weathered, blocky sandstone that has some shale fragments bedded at angles up to 30 degrees

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Available water capacity: Moderate
Root zone: Moderately deep

Minor Components

- Albertville, Cunningham, Holston, Nauvoo, and Townley soils, which are in similar landform positions
- Conasauga and Whitwell soils, which are in the slightly lower landform positions
- Soils that have a sandstone fragment content of more than 15 percent on the surface or in the surface layer

Use and Management

Land use: Woodland, pasture, and hayland

Cropland, hayland, and pasture
Suitability to field crops: Poorly suited
Suitability to hay: Moderately suited
Suitability to pasture: Moderately suited
Management concerns: Hazard of erosion

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and shortleaf pine
Management concerns: Slope and erodibility

Urban development
Suitability: Moderately suited
Limitations: Depth to bedrock, slow water movement, and slope

Recreational development
Suitability: Moderately suited
Limitations: Slope and depth to bedrock

Interpretive Group

Land capability classification: 4E

SpE—Sipsey fine sandy loam, 15 to 30 percent slopes

Setting

Landform: Hills and ridges
Landform position: Backslopes
Flooding: None
Slope: Moderately steep

Typical Profile

Surface layer:
0 to 7 inches—yellowish brown fine sandy loam

Subsoil:
7 to 16 inches—brownish yellow fine sandy loam
16 to 34 inches—yellowish red sandy clay loam that has strong brown mottles

Underlying material:
34 to 60 inches—multicolored, highly weathered, blocky sandstone that has some shale fragments bedded at angles up to 30 degrees

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Available water capacity: Low
Root zone: Moderately deep

Minor Components

- Albertville, Cunningham, Holston, Nauvoo, Nella, and Townley soils, which are in similar landform positions
- Soils that have a sandstone fragment content of more than 15 percent on the surface or in the surface layer

Use and Management

Land use: Woodland and pasture

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Poorly suited
Suitability to pasture: Poorly suited
Management concerns: Erosion hazard

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and shortleaf pine
Management concerns: Slope, erodibility, and low available water capacity

Urban development
Suitability: Poorly suited
Limitations: Depth to bedrock, slow water movement, and slope

Recreational development
Suitability: Poorly suited
Limitations: Slope and depth to bedrock

Interpretive Group

Land capability classification: 6E

SuB—Subligna extremely gravelly sandy loam, 0 to 5 percent slopes, occasionally flooded

Setting

Landform: Flood plains
Flooding: Occasional
Slope: Nearly level or gently sloping

Typical Profile

Surface layer:
0 to 4 inches—dark grayish brown extremely gravelly sandy loam

Subsoil:
4 to 16 inches—strong brown extremely gravelly sandy loam

Substratum:
16 to 60 inches—brownish yellow extremely gravelly loamy sand

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Rapid
Available water capacity: Low
Root zone: Very deep

Minor Components

- Chenneby, Shellbluff, and Wax soils, which are in similar landform positions
- Sunlight and Shady soils, which are in the higher landform positions

Use and Management

Land use: Pasture, hayland, cropland, and woodland

Cropland, hayland, and pasture
Suitability to field crops: Moderately suited
Suitability to hay: Moderately suited
Suitability to pasture: Moderately suited
Management concerns: Flooding, content of gravel, and low available water capacity

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and yellow-poplar
Management concerns: Flooding and rock fragments

Urban development
Suitability: Moderately suited
Limitations: Flooding, seepage, and filtering capacity

Recreational development
Suitability: Moderately suited
Limitations: Flooding, content of gravel, and slope

Interpretive Group

Land capability classification: 3S

SxA—Suches loam, 0 to 2 percent slopes, occasionally flooded

Setting

Landform: Flood plains
Flooding: Occasional
Slope: Nearly level

Typical Profile

Surface layer:
0 to 6 inches—brown loam

Subsoil:
6 to 16 inches— brown loam
16 to 32 inches—dark brown loam
32 to 45 inches—dark yellowish brown loam
45 to 55 inches—dark yellowish brown sandy loam

Substratum:
55 to 60 inches—dark yellowish brown loamy sand

Soil Properties and Qualities

Drainage class: Well drained
Seasonal high water table: Apparent; at a depth of 3.0 to 6.0 feet
Permeability: Moderate
Available water capacity: Moderate
Root zone: Very deep

Minor Components

- Soils that are poorly drained and somewhat poorly drained
- Soils that are less developed and have sandier textures than the Suches soil

Use and Management

Land use: Cropland, pasture, and woodland

Cropland, hayland, and pasture
Suitability to field crops: Well suited
Suitability to hay: Well suited
Suitability to pasture: Well suited
Management concerns: Flooding

Woodland
Potential productivity: High
Preferred trees to plant: Black walnut, northern red oak, and yellow-poplar
Management concerns: Flooding and low strength

Urban development
Suitability: Poorly suited
Limitations: Flooding, slow water movement, and seepage

Recreational development
Suitability: Moderately suited
Limitations: Flooding

Interpretive Group

Land capability classification: 2W

TnB—Townley silt loam, 2 to 6 percent slopes

Setting

Landform: Low hills
Landform position: Summits and backslopes
Flooding: None
Slope: Gently sloping

Typical Profile

Surface layer:
0 to 5 inches—yellowish brown silt loam

Subsoil:
5 to 16 inches—strong brown silty clay that has brownish yellow mottles
16 to 27 inches—strong brown channery silty clay loam that has red and brownish yellow mottles

Underlying material:
27 to 60 inches—multicolored, rippable shale bedrock bedded at angles up to 35 degrees

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Slow
Available water capacity: Low
Root zone: Moderately deep

Minor Components

- Albertville, Conasauga, Cunningham, Docena, Enders, Holston, and Montevallo soils, which are in similar landform positions

Use and Management

Land use: Pasture, hayland, woodland, and cropland

Cropland, hayland, and pasture
Suitability to field crops: Moderately suited
Suitability to hay: Well suited
Suitability to pasture: Well suited
Management concerns: Hazard of erosion

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and shortleaf pine
Management concerns: Slope, erodibility, content of rock fragments, low strength, stickiness, and high plasticity index

Urban development
Suitability: Moderately suited
Limitations: Depth to bedrock, slow water movement, low strength, and shrink-swell potential

Recreational development
Suitability: Moderately suited
Limitations: Depth to bedrock, content of gravel, slow water movement, and slope

Interpretive Group

Land capability classification: 3E

TnD—Townley silt loam, 6 to 15 percent slopes

Setting

Landform: Low hills and ridges
Landform position: Summits and backslopes

Flooding: None
Slope: Strongly sloping

Typical Profile

Surface layer:
0 to 5 inches—yellowish brown silt loam

Subsoil:
5 to 16 inches—strong brown silty clay that has brownish yellow mottles
16 to 27 inches—strong brown channery silty clay loam that has red and brownish yellow mottles

Underlying material:
27 to 60 inches—multicolored, rippable shale bedrock bedded at angles up to 35 degrees

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Slow
Available water capacity: Low
Root zone: Moderately deep

Minor Components

- Albertville, Cunningham, Enders, Holston, Montevallo, and Sipsey soils, which are in similar landform positions
- Conasauga and Docena soils, which are in the slightly lower landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Woodland, pasture, hayland, and cropland

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Moderately suited
Suitability to pasture: Moderately suited
Management concerns: Hazard of erosion

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and shortleaf pine
Management concerns: Slope, erodibility, content of rock fragments, low strength, stickiness, and high plasticity index

Urban development
Suitability: Moderately suited
Limitations: Depth to bedrock, slow water movement, low strength, shrink-swell potential, and slope

Recreational development
Suitability: Poorly suited
Limitations: Depth to bedrock, content of gravel, slow water movement, and slope

Interpretive Group

Land capability classification: 6E

TnE—Townley silt loam, 15 to 30 percent slopes

Setting

Landform: Low hills and ridges
Landform position: Summits and backslopes
Flooding: None
Slope: Moderately steep

Typical Profile

Surface layer:
0 to 5 inches—yellowish brown silt loam

Subsoil:
5 to 16 inches—strong brown silty clay that has brownish yellow mottles
16 to 27 inches—strong brown channery silty clay loam that has red and brownish yellow mottles

Underlying material:
27 to 60 inches—multicolored, rippable shale bedrock bedded at angles up to 35 degrees

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Slow
Available water capacity: Low
Root zone: Moderately deep

Minor Components

- Albertville, Cunningham, Enders, Montevallo, and Sipsey soils, which are in similar landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Woodland and pasture

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Unsuited
Suitability to pasture: Poorly suited
Management concerns: Hazard of erosion

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and shortleaf pine
Management concerns: Slope, erodibility, content of rock fragments, low strength, low available water capacity, stickiness, and high plasticity index

Urban development
Suitability: Poorly suited
Limitations: Depth to bedrock, slow water movement, shrink-swell potential, low strength, and slope

Recreational development
Suitability: Poorly suited
Limitations: Depth to bedrock, content of gravel, slow water movement, and slope

Interpretive Group

Land capability classification: 7E

TnF—Townley silt loam, 30 to 45 percent slopes

Setting

Landform: Hills and ridges
Landform position: Backslopes
Flooding: None
Slope: Steep

Typical Profile

Surface layer:
0 to 5 inches—yellowish brown silt loam

Subsoil:
5 to 16 inches—strong brown silty clay that has brownish yellow mottles
16 to 27 inches—strong brown channery silty clay loam that has red and brownish yellow mottles

Underlying material:

27 to 60 inches—multicolored, rippable shale bedrock bedded at angles up to 35 degrees

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Slow
Available water capacity: Low
Root zone: Moderately deep

Minor Components

- Cunningham and Montevallo soils, which are in similar landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Woodland

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Unsuited
Suitability to pasture: Unsuited
Management concerns: Hazard of erosion

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and shortleaf pine
Management concerns: Slope, erodibility, content of rock fragments, low strength, low available water capacity, stickiness, and high plasticity index

Urban development
Suitability: Poorly suited
Limitations: Depth to bedrock, slow water movement, shrink-swell potential, low strength, and slope

Recreational development
Suitability: Poorly suited
Limitations: Depth to bedrock, content of gravel, slow water movement, and slope

Interpretive Group

Land capability classification: 7E

TrC—Townley-Urban land complex, 2 to 15 percent slopes

Setting

Landform: Low hills and ridges in urban areas
Landform position: Summits and backslopes
Flooding: None
Slope: Gently sloping or strongly sloping

Composition

Townley soils—about 60 percent
Urban soils—about 40 percent

Typical Profile

Townley
Surface layer:
0 to 5 inches—yellowish brown silt loam

Subsoil:
5 to 16 inches—strong brown silty clay that has brownish yellow mottles
16 to 27 inches—strong brown channery silty clay loam that has red and brownish yellow mottles

Underlying material:
27 to 60 inches—multicolored, rippable shale bedrock bedded at angles up to 35 degrees

Urban land
Urban land consists of areas that have been altered by cutting, filling, and shaping. Schools, parking lots, streets, commercial buildings, residential dwellings, or other structures are located in these areas.

Soil Properties and Qualities

Drainage class: Townley—well drained
Seasonal high water table: Townley—more than 6.0 feet
Permeability: Townley—slow
Available water capacity: Townley—low
Root zone: Townley—moderately deep

Minor Components

- Albertville, Cunningham, and Montevallo soils, which are in similar landform positions
- Conasauga and Docena soils, which are in the slightly lower landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Townley—lawns, gardens, and idle areas; Urban land—buildings, streets, parking lots, sidewalks, and other structures

Urban development
Suitability: Moderately suited
Limitations: Depth to bedrock, slow water movement, shrink-swell potential, low strength, and slope

Recreational development
Suitability: Poorly suited
Limitations: Depth to bedrock, content of gravel, slow water movement, and slope

Interpretive Group

Land capability classification: Townley—6E; Urban land—none assigned

TsE—Tsali channery loam, 5 to 25 percent slopes

Setting

Landform: Mountains
Landform position: Summits, shoulders, and backslopes
Flooding: None
Slope: Gently sloping to moderately steep

Typical Profile

Surface layer:
0 to 4 inches—strong brown channery loam

Subsoil:
4 to 14 inches—yellowish red clay loam

Underlying material:
14 to 60 inches—multicolored, rippable, interbedded phyllite and metasandstone bedrock bedded at angles up to 60 degrees

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Available water capacity: Very low
Root zone: Shallow

Minor Components

- Cataska, Junaluska, and Lily soils, which are in similar landform positions
- Areas of rock outcrops
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Woodland and pasture

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Unsuited
Suitability to pasture: Poorly suited
Management concerns: Hazard of erosion, depth to bedrock, and low available water capacity

Woodland
Potential productivity: Low
Preferred trees to plant: Shortleaf pine

Management concerns: Slope, erodibility, and content of rock fragments

Urban development
Suitability: Poorly suited
Limitations: Depth to bedrock, slope, low strength, and seepage

Recreational development
Suitability: Poorly suited
Limitations: Depth to bedrock, content of gravel, and slope

Interpretive Group

Land capability classification: 6E

TsF—Tsali channery loam, 25 to 45 percent slopes

Setting

Landform: Mountains
Landform position: Summits, shoulders, and backslopes
Flooding: None
Slope: Moderately steep or steep

Typical Profile

Surface layer:
0 to 4 inches—strong brown channery loam

Subsoil:
4 to 14 inches—yellowish red clay loam

Underlying material:
14 to 60 inches—multicolored, rippable, interbedded phyllite and metasandstone bedrock bedded at angles up to 60 degrees

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Available water capacity: Very low
Root zone: Shallow

Minor Components

- Cataska, Junaluska, and Lily soils, which are in similar landform positions
- Areas of rock outcrops
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Woodland

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Unsuited
Suitability to pasture: Unsuited
Management concerns: Hazard of erosion, depth to bedrock, and low available water capacity

Woodland
Potential productivity: Low

Preferred trees to plant: Shortleaf pine
Management concerns: Slope, erodibility, content of rock fragments, and low available water capacity

Urban development
Suitability: Poorly suited
Limitations: Depth to bedrock, slope, low strength, and seepage

Recreational development
Suitability: Poorly suited
Limitations: Depth to bedrock, content of gravel, and slope

Interpretive Group

Land capability classification: 7E

TsG—Tsali channery loam, 45 to 70 percent slopes

Setting

Landform: Mountains
Landform position: Backslopes
Flooding: None
Slope: Very Steep

Typical Profile

Surface layer:
0 to 4 inches—strong brown channery loam

Subsoil:
4 to 14 inches—yellowish red clay loam

Underlying material:
14 to 60 inches—multicolored, rippable, interbedded phyllite and metasandstone bedrock bedded at angles up to 60 degrees

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Available water capacity: Very low
Root zone: Shallow

Minor Components

- Cataska, Edneytown, and Lily soils, which are in similar landform positions
- Areas of rock outcrops
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Woodland

Cropland, hayland, and pasture
Suitability to field crops: Unsuited
Suitability to hay: Unsuited
Suitability to pasture: Unsuited
Management concerns: Hazard of erosion, depth to bedrock, and low available water capacity

Woodland
Potential productivity: Low
Preferred trees to plant: Shortleaf pine and Virginia pine
Management concerns: Slope, erodibility, content of rock fragments, and low available water capacity

Urban development
Suitability: Poorly suited
Limitations: Depth to bedrock, slope, low strength, and seepage

Recreational development
Suitability: Poorly suited
Limitations: Depth to bedrock, content of gravel, and slope

Interpretive Group

Land capability classification: 7E

Uc—Ultic Udarents, channery

Typical Profile

This map unit consists of areas that have been modified by cutting, filling, and shaping. Some mounds of mostly undisturbed soil remain in places. Most sites have exposed multicolored shale bedrock on the surface. A few areas contain quartzite or sandstone coarse fragments on the surface. Unprotected areas have few to common gullies that are small or medium in size. These areas generally are borrow areas, level building sites, firing ranges, landfills, or idle land.

Ug—Ultic Udarents, gravelly

Typical Profile

This map unit consists of areas that have been modified by cutting, filling, and shaping. Some mounds of mostly undisturbed soil remain in places. Most sites have exposed red or dark red subsurface horizons that vary in texture from loamy to clayey. Areas often have few to many chert or sandstone fragments on the surface. Some sites contain rock fragments that are the size of boulders. Unprotected areas have few to many gullies that are small or medium in size. These areas generally are borrow areas, level building sites, firing ranges, landfills, or idle land.

UrC—Urban land, 2 to 10 percent slopes

Typical Profile

This map unit consists of areas that have been altered by cutting, filling, and shaping. These areas generally consist of buildings, streets, parking lots, sidewalks, or other structures.

W—Water

Typical Profile

This map unit consists of areas of water, including ponds, lakes, and rivers. This map unit is not assigned a capability class.

WaA—Wax fine sandy loam, 0 to 2 percent slopes, occasionally flooded

Setting

Landform: Narrow drainageways and flats
Flooding: Occasional
Slope: Nearly level

Typical Profile

Surface layer:
0 to 3 inches—brown fine sandy loam

Subsurface layer:
3 to 9 inches—brown silt loam that has light brownish yellow mottles
9 to 22 inches—light yellowish brown silt loam that has brownish yellow mottles

Subsoil:
22 to 29 inches—brownish yellow silty clay loam that has light yellowish brown mottles
29 to 36 inches—light yellowish brown gravelly clay loam that has strong brown and light gray mottles
36 to 60 inches—light yellowish brown extremely gravelly clay loam that has strong brown and light gray mottles

Soil Properties and Qualities

Drainage class: Moderately well drained
Seasonal high water table: Perched; at a depth of 1.5 to 3.0 feet
Permeability: Slow
Available water capacity: Low
Root zone: Moderately deep to a dense and brittle layer that is restrictive

Minor Components

- Chenneby, Guthrie, and Whitwell soils, which are in similar landform positions
- Soils that have a chert fragment content of more than 15 percent in the upper part

Use and Management

Land use: Woodland, pasture, hayland, and cropland

Cropland, hayland, and pasture
Suitability to field crops: Well suited
Suitability to hay: Well suited
Suitability to pasture: Well suited
Management concerns: Flooding and wetness

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine and yellow-poplar
Management concerns: Flooding

Urban development
Suitability: Poorly suited
Limitations: Flooding, slow water movement, depth to cemented pan, and depth to saturated zone

Recreational development
Suitability: Moderately suited

Limitations: Flooding, slow water movement, depth to saturated zone, and depth to cemented pan

Interpretive Group

Land capability classification: 2W

WaB—Wax fine sandy loam, 2 to 6 percent slopes, rarely flooded

Setting

Landform: Narrow drainageways and low hills
Landform position: Toeslopes of low hills
Flooding: Rare
Slope: Gently sloping

Typical Profile

Surface layer:
0 to 3 inches—brown fine sandy loam

Subsurface layer:
3 to 9 inches—brown silt loam that has light brownish yellow mottles
9 to 22 inches—light yellowish brown silt loam that has brownish yellow mottles

Subsoil:
22 to 29 inches—brownish yellow silty clay loam that has light yellowish brown mottles
29 to 36 inches—light yellowish brown gravelly clay loam that has strong brown and light gray mottles
36 to 60 inches—light yellowish brown extremely gravelly clay loam that has strong brown and light gray mottles

Soil Properties and Qualities

Drainage class: Moderately well drained
Seasonal high water table: Perched; at a depth of 1.5 to 3.0 feet
Permeability: Slow
Available water capacity: Low
Root zone: Moderately deep to a dense and brittle layer that is restrictive

Minor Components

- Whitwell soils, which are in similar landform positions
- Fullerton, Minvale and Shack soils, which are in the slightly higher landform positions
- Soils that have a chert fragment content of more than 15 percent in the upper part

Use and Management

Land use: Woodland, pasture, hayland, and cropland

Cropland, hayland, and pasture
Suitability to field crops: Well suited
Suitability to hay: Well suited
Suitability to pasture: Well suited
Management concerns: Hazard of erosion, slope, and wetness

Woodland
Potential productivity: Moderate

Preferred trees to plant: Loblolly pine and yellow-poplar
Management concerns: Slope and erodibility

Urban development
Suitability: Poorly suited
Limitations: Slow water movement, depth to cemented pan, and depth to saturated zone

Recreational development
Suitability: Moderately suited
Limitations: Slope, slow water movement, depth to saturated zone, and depth to cemented pan

Interpretive Group

Land capability classification: 2E

WnB—Waynesboro sandy loam, 2 to 6 percent slopes

Setting

Landform: High stream terraces
Flooding: None
Slope: Gently sloping

Typical Profile

Surface layer:
0 to 6 inches—brown sandy loam

Subsoil:
6 to 20 inches—red clay loam
20 to 36 inches—dark red clay loam
36 to 60 inches—dark red clay loam that has strong brown mottles

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Available water capacity: High
Root zone: Very deep

Minor Components

- Dewey, Cunningham, Enders, Fullerton, and Hanceville soils, which are in similar landform positions
- Sequatchie soils, which are in the lower landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Pasture, hayland, cropland, and woodland

Cropland, hayland, and pasture
Suitability to field crops: Well suited
Suitability to hay: Well suited
Suitability to pasture: Well suited
Management concerns: Hazard of erosion

Woodland
Potential productivity: Moderate
Preferred trees to plant: Loblolly pine, shortleaf pine, and yellow-poplar
Management concerns: Slope and erodibility

Urban development
Suitability: Well suited
Limitations: Slow water movement and low strength

Recreational development
Suitability: Well suited
Limitations: Slope

Interpretive Group

Land capability classification: 2E

WnD—Waynesboro sandy loam, 6 to 15 percent slopes

Setting

Landform: High stream terraces and hills
Landform position: Backslopes and footslopes of hills
Flooding: None
Slope: Strongly sloping

Typical Profile

Surface layer:
0 to 6 inches—brown sandy loam

Subsoil:
6 to 20 inches—red clay loam
20 to 36 inches—dark red clay loam
36 to 60 inches—dark red clay loam that has strong brown mottles

Soil Properties and Qualities

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Available water capacity: High
Root zone: Very deep

Minor Components

- Cunningham, Dewey, Enders, Fullerton, and Hanceville soils, which are in similar landform positions
- Sequatchie soils, which are in the lower landform positions

Use and Management

Land use: Pasture, hayland, cropland, and woodland

Cropland, hayland, and pasture
Suitability to field crops: Poorly suited
Suitability to hay: Moderately suited
Suitability to pasture: Moderately suited
Management concerns: Erosion hazard

Woodland
Potential productivity: High
Preferred trees to plant: Loblolly pine, shortleaf pine, and yellow-poplar
Management concerns: Slope and erodibility

Urban development
Suitability: Moderately suited
Limitations: Slow water movement, low strength, and slope

Recreational development
Suitability: Moderately suited
Limitations: Slope

Interpretive Group

Land capability classification: 4E

WsC—Waynesboro-Urban land complex, 2 to 15 percent slopes

Setting

Landform: High stream terraces and hills
Landform position: Backslopes and footslopes of hills
Flooding: None
Slope: Gently sloping or strongly sloping

Composition

Waynesboro soils—about 60 percent
Urban land soils—about 40 percent

Typical Profile

Waynesboro
Surface layer:
0 to 6 inches—brown sandy loam

Subsoil:
6 to 20 inches—red clay loam
20 to 36 inches—dark red clay loam
36 to 60 inches—dark red clay loam that has strong brown mottles

Urban land
Urban land consists of areas that have been altered by cutting, filling, and shaping. Schools, parking lots, streets, commercial buildings, residential dwellings, or other structures are located in these areas.

Soil Properties and Qualities

Drainage class: Waynesboro—well drained
Seasonal high water table: Waynesboro—more than 6.0 feet
Permeability: Waynesboro—moderate
Available water capacity: Waynesboro—high
Root zone: Waynesboro—very deep

Minor Components

- Dewey, Cunningham, Fullerton, and Hanceville soils, which are in similar landform positions

- Sequatchie soils, which are in the slightly lower landform positions
- Soils that formed in alluvial sediments along drainageways

Use and Management

Land use: Waynesboro soils—lawns, gardens, and idle acres; Urban land—buildings, streets, parking lots, sidewalks, and other structures

Urban development
Suitability: Moderately suited
Limitations: Slope, slow water movement, and low strength

Recreational development
Suitability: Moderately suited
Limitations: Slope

Interpretive Group

Land capability classification: Waynesboro—4E; Urban land—none assigned

WtA—Whitwell silt loam, 0 to 2 percent slopes, occasionally flooded

Setting

Landform: Low stream terraces and flood plains
Flooding: Occasional
Slope: Nearly level

Typical Profile

Surface layer:
0 to 4 inches—brown silt loam

Subsoil:
4 to 6 inches—brown clay loam that has yellowish brown mottles
6 to 19 inches—brownish yellow clay loam
19 to 24 inches—brownish yellow clay loam that has light gray and strong brown mottles
24 to 46 inches—strong brown clay loam that has light brownish gray mottles

Substratum:
46 to 60 inches—yellowish brown sandy clay loam that has light gray mottles

Soil Properties and Qualities

Drainage class: Moderately well drained
Seasonal high water table: Apparent; at a depth of 1.5 to 3.0 feet
Permeability: Moderate
Available water capacity: Moderate or high
Root zone: Very deep

Minor Components

- Chenneby, Docena, Guthrie, Ketona, and Shellbluff soils, which are in similar landform positions
- Conasauga soils, which are in the slightly higher landform positions

Use and Management

Land use: Cropland, pasture, and woodland

Cropland, hayland, and pasture
Suitability to field crops: Well suited
Suitability to hay: Well suited
Suitability to pasture: Well suited
Management concerns: Flooding and wetness

Woodland
Potential productivity: High
Preferred trees to plant: Loblolly pine and sweetgum
Management concerns: Flooding, low strength, and wetness

Urban development
Suitability: Poorly suited
Limitations: Flooding, depth to saturated zone, slow water movement, and low strength

Recreational development
Suitability: Moderately suited
Limitations: Depth to saturated zone and flooding

Interpretive Group

Land capability classification: 2W

WtB—Whitwell silt loam, 2 to 6 percent slopes

Setting

Landform: Low stream terraces
Flooding: None
Slope: Gently sloping

Typical Profile

Surface layer:
0 to 4 inches—brown silt loam

Subsoil:
4 to 6 inches—brown clay loam that has yellowish brown mottles
6 to 19 inches—brownish yellow clay loam
19 to 24 inches—brownish yellow clay loam that has light gray and strong brown mottles
24 to 46 inches—strong brown clay loam that has light brownish gray mottles

Substratum:
46 to 60 inches—yellowish brown sandy clay loam that has light gray mottles

Soil Properties and Qualities

Drainage class: Moderately well drained
Seasonal high water table: Apparent; at a depth of 1.5 to 3.0 feet
Permeability: Moderate
Available water capacity: Moderate or high
Root zone: Very deep

Minor Components

- Conasauga and Shellbluff soils, which are in similar landform positions

Use and Management

Land use: Cropland, pasture, and woodland

Cropland, hayland, and pasture
Suitability to field crops: Well suited
Suitability to hay: Well suited
Suitability to pasture: Well suited
Management concerns: Slope, erosion hazard, and wetness

Woodland
Potential productivity: High
Preferred trees to plant: Loblolly pine and sweetgum
Management concerns: Slope, erodibility, low strength, and wetness

Urban development
Suitability: Moderately suited
Limitations: Depth to saturated zone and slow water movement

Recreational development
Suitability: Moderately suited
Limitations: Slope and depth to saturated zone

Interpretive Group

Land capability classification: 2E

WuA—Whitwell-Urban land complex, 0 to 2 percent slopes, occasionally flooded

Setting

Landform: Low stream terraces and flood plains in urban areas
Flooding: Occasional
Slope: Nearly level

Composition

Whitwell soils—about 60 percent
Urban land soils—about 40 percent

Typical Profile

Whitwell
Surface layer:
0 to 4 inches—brown silt loam

Subsoil:
4 to 6 inches—brown clay loam that has yellowish brown mottles
6 to 19 inches—brownish yellow clay loam
19 to 24 inches—brownish yellow clay loam that has light gray and strong brown mottles
24 to 46 inches—strong brown clay loam that has light brownish gray mottles

Substratum:
46 to 60 inches—yellowish brown sandy clay loam that has light gray mottles

Urban land
Urban land consists of areas that have been altered by cutting, filling, and shaping. Schools, parking lots, streets, commercial buildings, residential dwellings, or other structures are located in these areas.

Soil Properties and Qualities

Drainage class: Whitwell—moderately well drained
Seasonal high water table: Whitwell—apparent; at a depth of 1.5 to 3.0 feet
Permeability: Whitwell—moderate
Available water capacity: Whitwell—moderate or high
Root zone: Whitwell—very deep

Minor Components

- Chenneby, Ketona, and Shellbluff soils, which are in similar landform positions
- Conasauga and Docena soils, which are in the slightly higher landform positions

Use and Management

Land use: Whitwell soils—lawns, gardens, and idle areas; Urban land—buildings, streets, parking lots, sidewalks, and other structures

Urban development
Suitability: Poorly suited
Limitations: Flooding, depth to saturated zone, slow water movement, and low strength

Recreational development
Suitability: Moderately suited
Limitations: Flooding and depth to saturated zone

Interpretive Group

Land capability classification: Whitwell—2W; Urban land—none assigned

Use and Management of the Soils

This soil survey is an inventory and evaluation of the soils in the survey area. It can be used to adjust land uses to the limitations and potentials of natural resources and the environment. Also, it can help to prevent soil-related failures in land uses.

In preparing a soil survey, soil scientists, conservationists, engineers, and others collect extensive field data about the nature and behavioral characteristics of the soils. They collect data on erosion, droughtiness, flooding, and other factors that affect various soil uses and management. Field experience and collected data on soil properties and performance are used as a basis in predicting soil behavior.

Information in this section can be used to plan the use and management of soils for crops and pasture; as forestland; and as sites for buildings, sanitary facilities, highways and other transportation systems, and parks and other recreational facilities. It can be used to identify the potentials and limitations of each soil for specific land uses and to help prevent construction failures caused by unfavorable soil properties.

Planners and others using soil survey information can evaluate the effect of specific land uses on productivity and on the environment in all or part of the survey area. The survey can help planners to maintain or create a land use pattern in harmony with the natural soil.

Contractors can use this survey to locate sources of sand, roadfill, and topsoil. They can use it to identify areas where bedrock, wetness, or very firm soil layers can cause difficulty in excavation.

Health officials, highway officials, engineers, and others may also find this survey useful. The survey can help them plan the safe disposal of wastes and locate sites for pavements, sidewalks, campgrounds and playgrounds, lawns, and trees and shrubs.

Interpretive Ratings

The interpretive tables in this survey rate the soils in the survey area for various uses. Many of the tables identify the limitations that affect specified uses and indicate the severity of those limitations. The ratings in these tables are both verbal and numerical.

Rating Class Terms

Rating classes are expressed in the tables in terms that indicate the extent to which the soils are limited by all of the soil features that affect a specified use or in terms that indicate the suitability of the soils for the use. Thus, the tables may show limitation classes or suitability classes. Terms for the limitation classes are *not limited, somewhat limited,* and *very limited*. The suitability ratings are expressed as *well suited, moderately suited, poorly suited,* and *unsuited* or as *good, fair,* and *poor*.

Numerical Ratings

Numerical ratings in the tables indicate the relative severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.00 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact

on the use and the point at which the soil feature is not a limitation. The limitations appear in order from the most limiting to the least limiting. Thus, if more than one limitation is identified, the most severe limitation is listed first and the least severe one is listed last.

Crops and Pasture

James E. Dean, conservation agronomist, Natural Resources Conservation Service, helped prepare this section.

General management needed for crops and pasture is suggested in this section. The estimated yields of the main crops and pasture plants are listed, and the system of land capability classification used by the Natural Resources Conservation Service is explained.

Planners of management systems for individual fields or farms should consider the detailed information given in the description of each soil under the heading “Detailed Soil Map Units.” Specific information can be obtained from the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.

The most important management needs on most of the soils used for farming in Murray and Whitfield Counties are controlling water erosion, removing excess water, and maintaining good tilth and productivity. Most of the soils in the survey area are susceptible to erosion. The degree of erosion depends on the erodibility of the soil, the frequency and intensity of rainfall, the steepness and length of slopes, the kinds of crops grown, and the tillage system used.

Loss of the surface layer through erosion is damaging for two major reasons. First, productivity is reduced as the surface layer is lost and part of the subsoil is incorporated into the plow layer. Loss of the surface layer is especially damaging on soils that have a clayey subsoil, such as the Capshaw, Cunningham, Dewey, Enders, Fullerton, and Townley soils. Second, soil erosion on farmland results in the sedimentation of streams. Control of erosion minimizes this pollution and improves the quality of water for municipal use, for recreation, and for fish and wildlife.

Erosion-control practices provide a protective surface cover, help to control runoff, and increase the rate of water infiltration. A cropping system that keeps a plant cover on the surface for extended periods helps to maintain the productive capacity of the soil. On livestock farms, which require pasture and hay, including forage crops in the cropping system reduces the hazard of erosion on sloping land and improves tilth for the crops that follow in the rotation.

Applying conservation tillage systems that leave adequate amounts of crop residue on the surface increases the rate of water infiltration, helps to control runoff, and reduces the hazard of erosion. This practice can be used on most of the soils in Murray and Whitfield Counties. No-till planting is an example of a conservation practice that can be used on most of the soils in the survey area.

Terraces and diversions reduce the length of a slope and help to control runoff and the concentrated flow of water on the soil. They are most practical on soils that have smooth and convex slopes, such as the Cunningham, Enders, Dewey, and Fullerton soils.

Information about erosion-control and drainage practices for each kind of soil is available at the local office of the Natural Resources Conservation Service.

Excess water is a limitation on some soils in the survey area. The type of drainage system needed depends on the soil and the kinds of crops grown. Arkabutla, Chenneby, and Ketona soils are examples of poorly drained or somewhat poorly drained soils in the county where flooding and wetness are management concerns. Management of drainage in conformance with regulations influencing wetlands may require special permits and extra planning.

Natural fertility is low in most of the soils in the survey area. The soils in the survey area are naturally acid. Applications of agricultural limestone are needed in order to

obtain high yields of legumes and other crops that grow best on nearly neutral soils. On all soils, additions of lime and fertilizer should be based on the results of soil testing, on the needs of the crop, and on the desired level of yields. The Cooperative Extension Service can help in determining the kinds and amounts of fertilizer and lime to be applied.

Soil tilth affects the germination of seeds and the infiltration of water into the soil. Soils that have good tilth are granular and porous. Many of the soils used for crops in Murray and Whitfield Counties have a surface layer that is low in organic matter. Tilth generally is good, but it has deteriorated in areas where the soil has eroded and the subsoil is exposed. Regular additions of crop residue, manure, and other organic material help to maintain or improve tilth.

Some of the more common crops that are suited to the soils and the climate of the survey area are corn, soybeans, grain sorghum, and wheat. Improved bermudagrass and tall fescue are common pasture grasses that grow well on moderately well drained, loamy or clayey soils. Somewhat poorly drained soils, which are seasonally wet, are best suited to tall fescue.

The latest information about growing specialty crops can be obtained from local offices of the Cooperative Extension Service and the Natural Resources Conservation Service.

Yields per Acre

The average yields per acre that can be expected of the principal crops under a high level of management are shown in the table "Nonirrigated Yields by Map Unit Component." In any given year, yields may be higher or lower than those indicated in the table because of variations in rainfall and other climatic factors. The land capability classification of map units in the survey area also is shown in the table.

The yields are based mainly on the experience and records of farmers, conservationists, and extension agents. Available yield data from nearby counties and results of field trials and demonstrations also are considered.

The management needed to obtain the indicated yields of the various crops depends on the kind of soil and the crop. Management can include drainage, erosion control, and protection from flooding; the proper planting and seeding rates; suitable high-yielding crop varieties; appropriate and timely tillage; control of weeds, plant diseases, and harmful insects; favorable soil reaction and optimum levels of nitrogen, phosphorus, potassium, and trace elements for each crop; effective use of crop residue, barnyard manure, and green manure crops; and harvesting that ensures the smallest possible loss.

Pasture yields are expressed in terms of animal unit months. An animal unit month (AUM) is the amount of forage required by one mature cow of approximately 1,000 pounds weight, with or without a calf, for 1 month.

The estimated yields reflect the productive capacity of each soil for each of the principal crops. Yields are likely to increase as new production technology is developed. The productivity of a given soil compared with that of other soils, however, is not likely to change.

Crops other than those shown in the yields table are grown in the survey area, but estimated yields are not listed because the acreage of such crops is small. The local office of the Natural Resources Conservation Service or of the Cooperative Extension Service can provide information about the management and productivity of the soils for those crops.

Land Capability Classification

Land capability classification shows, in a general way, the suitability of soils for most kinds of field crops. Crops that require special management are excluded. The soils

are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in grouping the soils do not include major and generally expensive landforming that would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects. Capability classification is not a substitute for interpretations designed to show suitability and limitations of groups of soils for rangeland, for forestland, or for engineering purposes.

In the capability system, soils are generally grouped at three levels—capability class, subclass, and unit (USDA, 1961).

Capability classes, the broadest groups, are designated by the numbers 1 through 8. The numbers indicate progressively greater limitations and narrower choices for practical use. The classes are defined as follows:

Class 1 soils have slight limitations that restrict their use.

Class 2 soils have moderate limitations that restrict the choice of plants or that require moderate conservation practices.

Class 3 soils have severe limitations that restrict the choice of plants or that require special conservation practices, or both.

Class 4 soils have very severe limitations that restrict the choice of plants or that require very careful management, or both.

Class 5 soils are subject to little or no erosion but have other limitations, impractical to remove, that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 6 soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 7 soils have very severe limitations that make them unsuitable for cultivation and that restrict their use mainly to grazing, forestland, or wildlife habitat.

Class 8 soils and miscellaneous areas have limitations that preclude commercial plant production and that restrict their use to recreational purposes, wildlife habitat, watershed, or esthetic purposes.

Capability subclasses are soil groups within one class. They are designated by adding a small letter, *e, w, s,* or *c,* to the class numeral, for example, 2e. The letter *e* shows that the main hazard is the risk of erosion unless close-growing plant cover is maintained; *w* shows that water in or on the soil interferes with plant growth or cultivation (in some soils the wetness can be partly corrected by artificial drainage); *s* shows that the soil is limited mainly because it is shallow, droughty, or stony; and *c,* used in only some parts of the United States, shows that the chief limitation is climate that is very cold or very dry.

In class 1 there are no subclasses because the soils of this class have few limitations. Class 5 contains only the subclasses indicated by *w, s,* or *c* because the soils in class 5 are subject to little or no erosion. They have other limitations that restrict their use to pasture, rangeland, forestland, wildlife habitat, or recreation.

Capability units are soil groups within a subclass. The soils in a capability unit are enough alike to be suited to the same crops and pasture plants, to require similar management, and to have similar productivity. Capability units are generally designated by adding an Arabic numeral to the subclass symbol, for example, 2e-4 and 3e-6. These units are not given in all soil surveys.

The capability classification of the soils in this survey area is given in the section “Detailed Soil Map Units” and in the yields table.

Prime Farmland and Other Important Farmlands

The table “Prime Farmland and Other Important Farmlands” lists the map units in the survey area that are considered prime farmland and farmland of statewide importance. This list does not constitute a recommendation for a particular land use.

In an effort to identify the extent and location of important farmlands, the Natural Resources Conservation Service, in cooperation with other interested Federal, State, and local government organizations, has inventoried land that can be used for the production of the Nation's food supply.

Prime farmland is of major importance in meeting the Nation's short- and long-range needs for food and fiber. Because the supply of high-quality farmland is limited, the U.S. Department of Agriculture recognizes that responsible levels of government, as well as individuals, should encourage and facilitate the wise use of our Nation's prime farmland.

Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas. The soil quality, growing season, and moisture supply are those needed for the soil to economically produce sustained high yields of crops when proper management, including water management, and acceptable farming methods are applied. In general, prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, an acceptable salt and sodium content, and few or no rocks. The water supply is dependable and of adequate quality. Prime farmland is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and it either is not frequently flooded during the growing season or is protected from flooding. Slope ranges mainly from 0 to 6 percent. More detailed information about the criteria for prime farmland is available at the local office of the Natural Resources Conservation Service.

A recent trend in land use in some areas has been the loss of some prime farmland to industrial and urban uses. The loss of prime farmland to other uses puts pressure on marginal lands, which generally are more erodible, droughty, and less productive and cannot be easily cultivated.

For some soils identified in the table as prime farmland, measures that overcome a hazard or limitation, such as flooding, wetness, and droughtiness, are needed. Onsite evaluation is needed to determine whether or not the hazard or limitation has been overcome by corrective measures.

In some areas, land that does not meet the criteria for prime farmland is considered to be *farmland of statewide importance* for the production of food, feed, fiber, forage, and oilseed crops. The criteria for defining and delineating farmland of statewide importance are determined by the appropriate State agencies. Generally, this land includes areas of soils that nearly meet the requirements for prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods. Some areas may produce as high a yield as prime farmland if conditions are favorable. Farmland of statewide importance may include tracts of land that have been designated for agriculture by State law.

Forestland Productivity and Management

Josh A. Wheat, state resource conservationist, Natural Resources Conservation Service, helped prepare this section.

Of the 406,000 acres in Murray and Whitfield Counties, over 66 percent, or 260,400 acres, is in forest. About 147,600 acres, or 57 percent, of the forestland is privately owned, 63,079 acres is under National Forest ownership, and the remainder is owned by local governments (USDA, 1997).

Among the most significant forest types in the soil survey area are mixed oak-hickory-pine, which accounts for about 140,700 acres, and natural stands of loblolly-shortleaf pine, which accounts for about 101,100 acres (USDA, 1997).

Virgin forest once covered most of the county. As settlement progressed in the area, however, most of the well drained soils on uplands were cleared for cultivation. The remaining forestland consists primarily of the steeper soils and the soils in flood plains and depressions. Farming peaked in the early 1900s and then experienced a sharp decline in the 1920s with what became known as the cotton bust. The trend in land use during the next several decades was away from cultivated crops and back to forest and pasture. Since the early 1960s, the rural farm population has decreased significantly and the shift has been toward an urban and a non-farming, rural population. The number of farms decreased more than 60 percent from the early 1960s to the late 1990s.

Over 67 percent of the forestland in the survey area is considered to be fully or moderately stocked, and the remainder of the forestland is considered to be poorly stocked. Only about 12 percent of the forestland is considered to be even moderately productive, capable of producing, under average management, about 1 to 1.5 cords per acre per year (USDA, 1997). Much of the remaining acreage generally produces less than a cord per acre. Production on much of the existing forestland could be improved by thinning out mature trees and undesirable species. Protection from excessive grazing, fire, disease, and insects also could improve the stands. The Natural Resources Conservation Service, the Georgia Forestry Commission, and the Cooperative Extension Service can provide additional information about forestland productivity and management in the survey area.

The tables described in this section can help forest owners or managers plan the use of soils for wood crops. They show the potential productivity of the soils for wood crops and rate the soils according to the limitations that affect various aspects of forestland management.

Forestland Productivity

In the table, "Forestland Productivity," the *potential productivity* of merchantable or *common trees* on a soil is expressed as a site index and as a volume number. The *site index* is the average height, in feet, that dominant and codominant trees of a given species attain in a specified number of years. The site index applies to fully stocked, even-aged, unmanaged stands. Commonly grown trees are those that forest managers generally favor in intermediate or improvement cuttings. They are selected on the basis of growth rate, quality, value, and marketability. More detailed information regarding site index is available in the "National Forestry Manual," which is available in local offices of the Natural Resources Conservation Service or on the Internet.

The *volume of wood fiber*, a number, is the yield likely to be produced by the most important tree species. This number, expressed as cubic feet per acre per year and calculated at the age of culmination of the mean annual increment (CMAI), indicates the amount of fiber produced in a fully stocked, even-aged, unmanaged stand.

Trees to manage are those that are preferred for planting, seeding, or natural regeneration and those that remain in the stand after thinning or partial harvest.

Forestland Management

The titles of the tables described in this section are:

- "Log Landings, Hazard of Erosion, and Suitability for Roads on Forestland"
- "Forestland Planting and Harvesting"

In these tables, interpretive ratings are given for various aspects of forestland management. The ratings are both verbal and numerical.

Some rating class terms indicate the degree to which the soils are suited to a specified aspect of forestland management. *Well suited* indicates that the soil has

features that are favorable for the specified management aspect and has no limitations. Good performance can be expected, and little or no maintenance is needed. *Moderately suited* indicates that the soil has features that are moderately favorable for the specified management aspect. One or more soil properties are less than desirable, and fair performance can be expected. Some maintenance is needed. *Poorly suited* indicates that the soil has one or more properties that are unfavorable for the specified management aspect. Overcoming the unfavorable properties requires special design, extra maintenance, and costly alteration. *Unsuited* indicates that the expected performance of the soil is unacceptable for the specified management aspect or that extreme measures are needed to overcome the undesirable soil properties.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the specified aspect of forestland management (1.00) and the point at which the soil feature is not a limitation (0.00).

The paragraphs that follow indicate the soil properties considered in rating the soils. More detailed information about the criteria used in the ratings is available in the "National Forestry Manual," which is available in local offices of the Natural Resources Conservation Service or on the Internet.

The ratings of *suitability for log landings* are based on slope, rock fragments on the surface, plasticity index, content of sand, the Unified classification, depth to a water table, ponding, flooding, and the hazard of soil slippage. The soils are described as well suited, moderately suited, or poorly suited to use as log landings.

Ratings in the column *hazard of erosion on roads and trails* are based on the soil erosion factor K, slope, and content of rock fragments. The ratings apply to unsurfaced roads and trails. The hazard is described as slight, moderate, or severe. A rating of *slight* indicates that little or no erosion is likely; *moderate* indicates that some erosion is likely, that the roads or trails may require occasional maintenance, and that simple erosion-control measures are needed; and *severe* indicates that significant erosion is expected, that the roads or trails require frequent maintenance, and that costly erosion-control measures are needed.

Ratings in the column *suitability for roads (natural surface)* are based on slope, rock fragments on the surface, plasticity index, content of sand, the Unified classification, depth to a water table, ponding, flooding, and the hazard of soil slippage. The ratings indicate the suitability for using the natural surface of the soil for roads. The soils are described as well suited, moderately suited, or poorly suited to this use.

Ratings in the columns *suitability for hand planting* and *suitability for mechanical planting* are based on slope, depth to a restrictive layer, content of sand, plasticity index, rock fragments on or below the surface, depth to a water table, and ponding. The soils are described as well suited, moderately suited, poorly suited, or unsuited to these methods of planting. It is assumed that necessary site preparation is completed before seedlings are planted.

Ratings in the column *suitability for use of harvesting equipment* are based on slope, rock fragments on the surface, plasticity index, content of sand, the Unified classification, depth to a water table, and ponding. The soils are described as well suited, moderately suited, or poorly suited to this use.

Recreational Development

The titles of the tables described in this section are:

- "Camp Areas and Picnic Areas"
- "Playgrounds and Paths and Trails"

In the tables described in this section, the soils of the survey area are rated according to limitations that affect their suitability for recreational development. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the recreational uses. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

The ratings in the tables are based on restrictive soil features, such as wetness, slope, and texture of the surface layer. Susceptibility to flooding is considered. Not considered in the ratings, but important in evaluating a site, are the location and accessibility of the area, the size and shape of the area and its scenic quality, vegetation, access to water, potential water impoundment sites, and access to public sewer lines. The capacity of the soil to absorb septic tank effluent and the ability of the soil to support vegetation also are important. Soils that are subject to flooding are limited for recreational uses by the duration and intensity of flooding and the season when flooding occurs. In planning recreational facilities, onsite assessment of the height, duration, intensity, and frequency of flooding is essential.

The information in these tables can be supplemented by other information in this survey, for example, interpretations for dwellings without basements, for local roads and streets, and for septic tank absorption fields.

Camp areas require site preparation, such as shaping and leveling the tent and parking areas, stabilizing roads and intensively used areas, and installing sanitary facilities and utility lines. Camp areas are subject to heavy foot traffic and some vehicular traffic. The ratings are based on the soil properties that affect the ease of developing camp areas and the performance of the areas after development. Slope, stoniness, and depth to bedrock or a cemented pan are the main concerns affecting the development of camp areas. The soil properties that affect the performance of the areas after development are those that influence trafficability and promote the growth of vegetation, especially in heavily used areas. For good trafficability, the surface of camp areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Picnic areas are subject to heavy foot traffic. Most vehicular traffic is confined to access roads and parking areas. The ratings are based on the soil properties that affect the ease of developing picnic areas and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of picnic areas. For good trafficability, the surface of picnic areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Playgrounds require soils that are nearly level, are free of stones, and can withstand intensive foot traffic. The ratings are based on the soil properties that affect the ease of developing playgrounds and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of playgrounds. For good trafficability, the surface of the playgrounds should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Paths and trails for hiking and horseback riding should require little or no slope modification through cutting and filling. The ratings are based on the soil properties that affect trafficability and erodibility. These properties are stoniness, depth to a water table, ponding, flooding, slope, and texture of the surface layer.

Hydric Soils

This section lists the map units that are rated as hydric soils in the survey area. This list can help in planning land uses; however, onsite investigation is recommended to determine the hydric soils on a specific site (National Research Council, 1995; Hurt and others, 2002).

The three essential characteristics of wetlands are hydrophytic vegetation, hydric soils, and wetland hydrology (Cowardin and others, 1979; U.S. Army Corps of Engineers, 1987; National Research Council, 1995; Tiner, 1985). Criteria for all of the characteristics must be met for areas to be identified as wetlands. Undrained hydric soils that have natural vegetation should support a dominant population of ecological wetland plant species. Hydric soils that have been converted to other uses should be capable of being restored to wetlands.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). These soils, under natural conditions, are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in “Soil Taxonomy” (Soil Survey Staff, 1999) and “Keys to Soil Taxonomy” (Soil Survey Staff, 1998) and in the “Soil Survey Manual” (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in “Field Indicators of Hydric Soils in the United States” (Hurt and others, 2002).

Hydric soils are identified by examining and describing the soil to a depth of about 20 inches. This depth may be greater if determination of an appropriate indicator so requires. It is always recommended that soils be excavated and described to the depth necessary for an understanding of the redoximorphic processes. Then, using the completed soil descriptions, soil scientists can compare the soil features required by each indicator and specify which indicators have been matched with the conditions

observed in the soil. The soil can be identified as a hydric soil if at least one of the approved indicators is present.

Map units that are dominantly made up of hydric soils may have small areas, or inclusions, of nonhydric soils in the higher positions on the landform, and map units dominantly made up of nonhydric soils may have inclusions of hydric soils in the lower positions on the landform.

The following map units meet the definition of hydric soils and, in addition, have at least one of the hydric soil indicators. This list can help in planning land uses; however, onsite investigation is recommended to determine the hydric soils on a specific site (National Research Council, 1995; Hurt and others, 2002).

GrA Guthrie silt loam, 0 to 2 percent slopes, occasionally flooded
KtA Ketona silt loam, 0 to 2 percent slopes, occasionally flooded

The following map units, in general, do not meet the definition of hydric soils because they do not have one of the hydric soil indicators. A portion of these map units, however, may include hydric soils. Onsite investigation is recommended to determine whether hydric soils occur and the location of the included hydric soils.

AuA Arkabutla silt loam, 0 to 2 percent slopes, occasionally flooded
CnA Chenneby silt loam, 0 to 2 percent slopes, occasionally flooded

Engineering

This section provides information for planning land uses related to urban development and to water management. Soils are rated for various uses, and the most limiting features are identified. Ratings are given for building site development, sanitary facilities, construction materials, and water management. The ratings are based on observed performance of the soils and on the data in the tables described under the heading “Soil Properties.”

Information in this section is intended for land use planning, for evaluating land use alternatives, and for planning site investigations prior to design and construction. The information, however, has limitations. For example, estimates and other data generally apply only to that part of the soil between the surface and a depth of 5 to 7 feet. Because of the map scale, small areas of different soils may be included within the mapped areas of a specific soil.

The information is not site specific and does not eliminate the need for onsite investigation of the soils or for testing and analysis by personnel experienced in the design and construction of engineering works.

Government ordinances and regulations that restrict certain land uses or impose specific design criteria were not considered in preparing the information in this section. Local ordinances and regulations should be considered in planning, in site selection, and in design.

Soil properties, site features, and observed performance were considered in determining the ratings in this section. During the fieldwork for this soil survey, determinations were made about particle-size distribution, liquid limit, plasticity index, soil reaction, depth to bedrock, hardness of bedrock within 5 to 7 feet of the surface, soil wetness, depth to a water table, ponding, slope, likelihood of flooding, natural soil structure aggregation, and soil density. Data were collected about kinds of clay minerals, mineralogy of the sand and silt fractions, and the kinds of adsorbed cations. Estimates were made for erodibility, permeability, corrosivity, shrink-swell potential, available water capacity, and other behavioral characteristics affecting engineering uses.

This information can be used to evaluate the potential of areas for residential, commercial, industrial, and recreational uses; make preliminary estimates of construction conditions; evaluate alternative routes for roads, streets, highways, pipelines, and underground cables; evaluate alternative sites for septic tank absorption fields and sewage lagoons; plan detailed onsite investigations of soils and geology; locate potential sources of sand, roadfill, and topsoil; plan structures for water management; and predict performance of proposed small structures and pavements by comparing the performance of existing similar structures on the same or similar soils.

The information in the tables, along with the soil maps, the soil descriptions, and other data provided in this survey, can be used to make additional interpretations.

Some of the terms used in this soil survey have a special meaning in soil science and are defined in the Glossary.

Building Site Development

The titles of the tables described in this section are:

- "Dwellings"
- "Roads and Streets and Shallow Excavations"

Soil properties influence the development of building sites, including the selection of the site, the design of the structure, construction, performance after construction, and maintenance. The tables described in this section show the degree and kind of soil limitations that affect dwellings with and without basements, local roads and streets, and shallow excavations.

The ratings in the tables are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect building site development. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Dwellings are single-family houses of three stories or less. For dwellings without basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. For dwellings with basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of about 7 feet. The ratings for dwellings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility. Compressibility is inferred from the Unified classification. The properties that affect the ease and amount of excavation include depth to a water table, ponding, flooding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

Local roads and streets have an all-weather surface and carry automobile and light truck traffic all year. They have a subgrade of cut or fill soil material; a base of gravel, crushed rock, or soil material stabilized by lime or cement; and a surface of flexible material (asphalt), rigid material (concrete), or gravel with a binder. The ratings are based on the soil properties that affect the ease of excavation and grading and the traffic-supporting capacity. The properties that affect the ease of excavation and grading are depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, depth to a water table, ponding, flooding, the amount of large stones, and slope. The properties that affect the traffic-supporting capacity are soil strength (as inferred from the AASHTO group index number), subsidence, linear extensibility (shrink-swell potential), the potential for frost action, depth to a water table, and ponding.

Shallow excavations are trenches or holes dug to a maximum depth of 5 or 6 feet for graves, utility lines, open ditches, or other purposes. The ratings are based on the soil properties that influence the ease of digging and the resistance to sloughing. Depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, the amount of large stones, and dense layers influence the ease of digging, filling, and compacting. Depth to the seasonal high water table, flooding, and ponding may restrict the period when excavations can be made. Slope influences the ease of using machinery. Soil texture, depth to the water table, and linear extensibility (shrink-swell potential) influence the resistance to sloughing.

Sanitary Facilities

The table “Sewage Disposal” shows the degree and kind of soil limitations that affect septic tank absorption fields and sewage lagoons. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect these uses. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Septic tank absorption fields are areas in which effluent from a septic tank is distributed into the soil through subsurface tiles or perforated pipe. Only that part of the soil between depths of 24 and 60 inches is evaluated. The ratings are based on the soil properties that affect absorption of the effluent, construction and maintenance of the system, and public health. Permeability, depth to a water table, ponding, depth to bedrock or a cemented pan, and flooding affect absorption of the effluent. Stones and boulders, ice, and bedrock or a cemented pan interfere with installation. Subsidence interferes with installation and maintenance. Excessive slope may cause lateral seepage and surfacing of the effluent in downslope areas.

Some soils are underlain by loose sand and gravel or fractured bedrock at a depth of less than 4 feet below the distribution lines. In these soils the absorption field may not adequately filter the effluent, particularly when the system is new. As a result, the ground water may become contaminated.

Sewage lagoons are shallow ponds constructed to hold sewage while aerobic bacteria decompose the solid and liquid wastes. Lagoons should have a nearly level

floor surrounded by cut slopes or embankments of compacted soil. Nearly impervious soil material for the lagoon floor and sides is required to minimize seepage and contamination of ground water. Considered in the ratings are slope, permeability, depth to a water table, ponding, depth to bedrock or a cemented pan, flooding, large stones, and content of organic matter.

Soil permeability is a critical property affecting the suitability for sewage lagoons. Most porous soils eventually become sealed when they are used as sites for sewage lagoons. Until sealing occurs, however, the hazard of pollution is severe. Soils that have a permeability rate of more than 2 inches per hour are too porous for the proper functioning of sewage lagoons. In these soils, seepage of the effluent can result in contamination of the ground water. Ground-water contamination is also a hazard if fractured bedrock is within a depth of 40 inches, if the water table is high enough to raise the level of sewage in the lagoon, or if floodwater overtops the lagoon.

A high content of organic matter is detrimental to proper functioning of the lagoon because it inhibits aerobic activity. Slope, bedrock, and cemented pans can cause construction problems, and large stones can hinder compaction of the lagoon floor. If the lagoon is to be uniformly deep throughout, the slope must be gentle enough and the soil material must be thick enough over bedrock or a cemented pan to make land smoothing practical.

Construction Materials

The table "Source of Sand, Roadfill, and Topsoil" gives information about the soils as potential sources of sand, roadfill, and topsoil. Normal compaction, minor processing, and other standard construction practices are assumed.

Sand is a natural aggregate suitable for commercial use with a minimum of processing. It is used in many kinds of construction. Specifications for each use vary widely. In the table, only the likelihood of finding material in suitable quantity is evaluated. The suitability of the material for specific purposes is not evaluated, nor are factors that affect excavation of the material. The properties used to evaluate the soil as a source of sand are gradation of grain sizes (as indicated by the Unified classification of the soil), the thickness of suitable material, and the content of rock fragments. If the bottom layer of the soil contains sand, the soil is considered a likely source regardless of thickness. The assumption is that the sand layer below the depth of observation exceeds the minimum thickness.

The soils are rated *good, fair,* or *poor* as potential sources of sand. A rating of *good* or *fair* means that the source material is likely to be in or below the soil. The bottom layer and the thickest layer of the soils are assigned numerical ratings. These ratings indicate the likelihood that the layer is a source of sand. The number 0.00 indicates that the layer is a poor source. The number 1.00 indicates that the layer is a good source. A number between 0.00 and 1.00 indicates the degree to which the layer is a likely source.

The soils are rated *good, fair,* and *poor* as potential sources of roadfill and topsoil. The features that limit the soils as sources of these materials are specified in the tables. The numerical ratings given after the specified features indicate the degree to which the features limit the soils as sources of roadfill and topsoil. The lower the number, the greater the limitation.

Roadfill is soil material that is excavated in one place and used in road embankments in another place. In this table, the soils are rated as a source of roadfill for low embankments, generally less than 6 feet high and less exacting in design than higher embankments.

The ratings are for the whole soil, from the surface to a depth of about 5 feet. It is assumed that soil layers will be mixed when the soil material is excavated and spread.

The ratings are based on the amount of suitable material and on soil properties that affect the ease of excavation and the performance of the material after it is in place. The thickness of the suitable material is a major consideration. The ease of excavation is affected by large stones, depth to a water table, and slope. How well the soil performs in place after it has been compacted and drained is determined by its strength (as inferred from the AASHTO classification of the soil) and linear extensibility (shrink-swell potential).

Topsoil is used to cover an area so that vegetation can be established and maintained. The upper 40 inches of a soil is evaluated for use as topsoil. Also evaluated is the reclamation potential of the borrow area. The ratings are based on the soil properties that affect plant growth; the ease of excavating, loading, and spreading the material; and reclamation of the borrow area. Toxic substances, soil reaction, and the properties that are inferred from soil texture, such as available water capacity and fertility, affect plant growth. The ease of excavating, loading, and spreading is affected by rock fragments, slope, depth to a water table, soil texture, and thickness of suitable material. Reclamation of the borrow area is affected by slope, depth to a water table, rock fragments, depth to bedrock or a cemented pan, and toxic material.

The surface layer of most soils is generally preferred for topsoil because of its organic matter content. Organic matter greatly increases the absorption and retention of moisture and nutrients for plant growth.

Water Management

The table “Ponds and Embankments” gives information on the soil properties and site features that affect water management. The degree and kind of soil limitations are given for pond reservoir areas and embankments, dikes, and levees. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect these uses. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the table indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Pond reservoir areas hold water behind a dam or embankment. Soils best suited to this use have low seepage potential in the upper 60 inches. The seepage potential is determined by the permeability of the soil and the depth to fractured bedrock or other permeable material. Excessive slope can affect the storage capacity of the reservoir area.

Embankments, dikes, and levees are raised structures of soil material, generally less than 20 feet high, constructed to impound water or to protect land against overflow. Embankments that have zoned construction (core and shell) are not considered. In this table, the soils are rated as a source of material for embankment fill. The ratings apply to the soil material below the surface layer to a depth of about 5 feet. It is assumed that soil layers will be uniformly mixed and compacted during construction.

The ratings do not indicate the ability of the natural soil to support an embankment. Soil properties to a depth even greater than the height of the embankment can affect performance and safety of the embankment. Generally, deeper onsite investigation is needed to determine these properties.

Soil material in embankments must be resistant to seepage, piping, and erosion and have favorable compaction characteristics. Unfavorable features include less than 5 feet of suitable material and a high content of stones or boulders, organic matter, or salts or sodium. A high water table affects the amount of usable material. It also affects trafficability.

Soil Properties

Data relating to soil properties are collected during the course of the soil survey.

Soil properties are determined by field examination of the soils and by laboratory index testing of some benchmark soils. Established standard procedures are followed. During the survey, many shallow borings are made and examined to identify and classify the soils and to delineate them on the soil maps. Samples are taken from some typical profiles and tested in the laboratory to determine particle-size distribution, plasticity, and compaction characteristics.

Estimates of soil properties are based on field examinations, on laboratory tests of samples from the survey area, and on laboratory tests of samples of similar soils in nearby areas. Tests verify field observations, verify properties that cannot be estimated accurately by field observation, and help to characterize key soils.

The estimates of soil properties are shown in tables. They include engineering properties, physical and chemical properties, and pertinent soil and water features.

Engineering Properties

The table described in this section gives the engineering classifications and the range of engineering properties for the layers of each soil in the survey area.

Depth to the upper and lower boundaries of each layer is indicated.

Texture is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. "Loam," for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, "gravelly." Textural terms are defined in the Glossary.

Classification of the soils is determined according to the Unified soil classification system (ASTM, 2005) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2004).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of particle-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement, the suitability of a soil as subgrade material can be indicated by a group

index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest. The AASHTO classification for soils tested, with group index numbers in parentheses, is given in the table "Engineering Index Test Data."

Rock fragments larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage.

Percentage (of soil particles) passing designated sieves is the percentage of the soil fraction less than 3 inches in diameter based on an ovendry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field.

Liquid limit and *plasticity index* (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination.

Physical and Chemical Soil Properties

The table described in this section shows estimates of some physical and chemical characteristics and features that affect soil behavior. These estimates are given for the layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

Depth to the upper and lower boundaries of each layer is indicated.

Clay as a soil separate consists of mineral soil particles that are less than 0.002 millimeter in diameter. In the table, the estimated clay content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The amount and kind of clay affect the fertility and physical condition of the soil and the ability of the soil to adsorb cations and to retain moisture. They influence shrink-swell potential, permeability, plasticity, the ease of soil dispersion, and other soil properties. The amount and kind of clay in a soil also affect tillage and earthmoving operations.

Moist bulk density is the weight of soil (ovendry) per unit volume. Volume is measured when the soil is at field moisture capacity, that is, the moisture content at $^{1}/_{3}$- or $^{1}/_{10}$-bar (33kPa or 10kPa) moisture tension. Weight is determined after the soil is dried at 105 degrees C. In the table, the estimated moist bulk density of each soil horizon is expressed in grams per cubic centimeter of soil material that is less than 2 millimeters in diameter. Bulk density data are used to compute linear extensibility, shrink-swell potential, available water capacity, total pore space, and other soil properties. The moist bulk density of a soil indicates the pore space available for water and roots. Depending on soil texture, a bulk density of more than 1.4 can restrict water storage and root penetration. Moist bulk density is influenced by texture, kind of clay, content of organic matter, and soil structure.

Permeability refers to the ability of a soil to transmit water or air. The term "permeability," as used in soil surveys, indicates saturated hydraulic conductivity (K_{sat}). The estimates in the table indicate the rate of water movement, in inches per hour, when the soil is saturated. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Permeability is considered in the design of soil drainage systems and septic tank absorption fields.

Available water capacity refers to the quantity of water that the soil is capable of storing for use by plants. The capacity for water storage is given in inches of water per inch of soil for each soil layer. The capacity varies, depending on soil properties that affect retention of water. The most important properties are the content of organic

matter, soil texture, bulk density, and soil structure. Available water capacity is an important factor in the choice of plants or crops to be grown and in the design and management of irrigation systems. Available water capacity is not an estimate of the quantity of water actually available to plants at any given time.

Linear extensibility refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. It is an expression of the volume change between the water content of the clod at $^1/_3$- or $^1/_{10}$-bar tension (33kPa or 10kPa tension) and oven dryness. The volume change is reported in the table as percent change for the whole soil. Volume change is influenced by the amount and type of clay minerals in the soil.

Linear extensibility is used to determine the shrink-swell potential of soils. The shrink-swell potential is low if the soil has a linear extensibility of less than 3 percent; moderate if 3 to 6 percent; high if 6 to 9 percent; and very high if more than 9 percent. If the linear extensibility is more than 3, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design commonly is needed.

Soil reaction is a measure of acidity or alkalinity. The pH of each soil horizon is based on many field tests. For many soils, values have been verified by laboratory analyses. Soil reaction is important in selecting crops and other plants, in evaluating soil amendments for fertility and stabilization, and in determining the risk of corrosion.

Organic matter is the plant and animal residue in the soil at various stages of decomposition. In the table, the estimated content of organic matter is expressed as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of organic matter in a soil can be maintained by returning crop residue to the soil. Organic matter has a positive effect on available water capacity, water infiltration, soil organism activity, and tilth. It is a source of nitrogen and other nutrients for crops and soil organisms.

Erosion factors are shown in the table as the K factor (Kw and Kf) and the T factor. Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and permeability. Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

Erosion factor Kw indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

Erosion factor Kf indicates the erodibility of the fine-earth fraction, or the material less than 2 millimeters in size.

Erosion factor T is an estimate of the maximum average annual rate of soil erosion by wind or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Water Features

The table described in this section gives estimates of various water features. The estimates are used in land use planning that involves engineering considerations.

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The four hydrologic soil groups are:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly

wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas.

The *months* in the table indicate the portion of the year in which the feature is most likely to be a concern.

Water table refers to a saturated zone in the soil. The table indicates, by month and depth to the top (*upper limit*) of the saturated zone in most years. Estimates of the upper limits are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors or mottles (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

Ponding is standing water in a closed depression. Unless a drainage system is installed, the water is removed only by percolation, transpiration, or evaporation. The table indicates *surface water depth* and the *duration* and *frequency* of ponding. Duration is expressed as *very brief* if less than 2 days, *brief* if 2 to 7 days, *long* if 7 to 30 days, and *very long* if more than 30 days. Frequency is expressed as none, rare, occasional, and frequent. *None* means that ponding is not probable; *rare* that it is unlikely but possible under unusual weather conditions (the chance of ponding is nearly 0 percent to 5 percent in any year); *occasional* that it occurs, on the average, once or less in 2 years (the chance of ponding is 5 to 50 percent in any year); and *frequent* that it occurs, on the average, more than once in 2 years (the chance of ponding is more than 50 percent in any year).

Flooding is the temporary inundation of an area caused by overflowing streams, by runoff from adjacent slopes, or by tides. Water standing for short periods after rainfall or snowmelt is not considered flooding, and water standing in swamps and marshes is considered ponding rather than flooding.

Duration and *frequency* are estimated. Duration is expressed as *extremely brief* if 0.1 hour to 4 hours, *very brief* if 4 hours to 2 days, *brief* if 2 to 7 days, *long* if 7 to 30 days, and *very long* if more than 30 days. Frequency is expressed as none, very rare, rare, occasional, frequent, and very frequent. *None* means that flooding is not probable; *very rare* that it is very unlikely but possible under extremely unusual weather conditions (the chance of flooding is less than 1 percent in any year); *rare* that it is unlikely but possible under unusual weather conditions (the chance of flooding is 1 to 5 percent in any year); *occasional* that it occurs infrequently under normal weather conditions (the chance of flooding is 5 to 50 percent in any year); *frequent* that it is likely to occur often under normal weather conditions (the chance of flooding is more than 50 percent in any year but is less than 50 percent in all months in any year); and *very frequent* that it is likely to occur very often under normal weather conditions (the chance of flooding is more than 50 percent in all months of any year).

The information is based on evidence in the soil profile, namely thin strata of gravel, sand, silt, or clay deposited by floodwater; irregular decrease in organic matter content with increasing depth; and little or no horizon development.

Also considered are local information about the extent and levels of flooding and the relation of each soil on the landscape to historic floods. Information on the extent of flooding based on soil data is less specific than that provided by detailed engineering surveys that delineate flood-prone areas at specific flood frequency levels.

Soil Features

The table described in this section gives estimates of various soil features. The estimates are used in land use planning that involves engineering considerations.

A *restrictive layer* is a nearly continuous layer that has one or more physical, chemical, or thermal properties that significantly impede the movement of water and air through the soil or that restrict roots or otherwise provide an unfavorable root environment. Examples are bedrock, cemented layers, dense layers, and frozen layers. The table indicates the hardness of the restrictive layer, which significantly affects the ease of excavation. *Depth to top* is the vertical distance from the soil surface to the upper boundary of the restrictive layer.

Risk of corrosion pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel or concrete. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. The rate of corrosion of concrete is based mainly on the sulfate and sodium content, texture, moisture content, and acidity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel or concrete in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel or concrete in installations that are entirely within one kind of soil or within one soil layer.

For uncoated steel, the risk of corrosion, expressed as *low, moderate,* or *high,* is based on soil drainage class, total acidity, electrical resistivity near field capacity, and electrical conductivity of the saturation extract.

For concrete, the risk of corrosion also is expressed as *low, moderate,* or *high*. It is based on soil texture, acidity, and amount of sulfates in the saturation extract.

Classification of the Soils

The system of soil classification used by the National Cooperative Soil Survey has six categories (Soil Survey Staff, 1999 and 1998). Beginning with the broadest, these categories are the order, suborder, great group, subgroup, family, and series. Classification is based on soil properties observed in the field or inferred from those observations or from laboratory measurements. The categories are defined in the following paragraphs.

ORDER. Twelve soil orders are recognized. The differences among orders reflect the dominant soil-forming processes and the degree of soil formation. Each order is identified by a word ending in *sol*. An example is Ultisol.

SUBORDER. Each order is divided into suborders primarily on the basis of properties that influence soil genesis and are important to plant growth or properties that reflect the most important variables within the orders. The last syllable in the name of a suborder indicates the order. An example is Udult (*Ud*, meaning humid, plus *ult*, from Ultisol).

GREAT GROUP. Each suborder is divided into great groups on the basis of close similarities in kind, arrangement, and degree of development of pedogenic horizons; soil moisture and temperature regimes; type of saturation; and base status. Each great group is identified by the name of a suborder and by a prefix that indicates a property of the soil. An example is Hapludults (*Hapl*, meaning minimal horizonation, plus *udult*, the suborder of the Ultisols that has a udic moisture regime).

SUBGROUP. Each great group has a typic subgroup. Other subgroups are intergrades or extragrades. The typic subgroup is the central concept of the great group; it is not necessarily the most extensive. Intergrades are transitions to other orders, suborders, or great groups. Extragrades have some properties that are not representative of the great group but do not indicate transitions to any other taxonomic class. Each subgroup is identified by one or more adjectives preceding the name of the great group. The adjective *Typic* identifies the subgroup that typifies the great group. An example is Typic Hapludults.

FAMILY. Families are established within a subgroup on the basis of physical and chemical properties and other characteristics that affect management. Generally, the properties are those of horizons below plow depth where there is much biological activity. Among the properties and characteristics considered are particle-size class, mineralogy class, cation-exchange activity class, soil temperature regime, soil depth, and reaction class. A family name consists of the name of a subgroup preceded by terms that indicate soil properties. An example is fine, mixed, semiactive, thermic Typic Hapludults.

SERIES. The series consists of soils within a family that have horizons similar in color, texture, structure, reaction, consistence, mineral and chemical composition, and arrangement in the profile.

The table "Taxonomic Classification of the Soils" indicates the order, suborder, great group, subgroup, and family of the soil series in the survey area.

Soil Series and Their Morphology

In this section, each soil series recognized in the survey area is described. Characteristics of the soil and the material in which it formed are identified for each

series. A pedon, a small three-dimensional area of soil, that is typical of the series in the survey area is described. The detailed description of each soil horizon follows standards in the “Soil Survey Manual” (Soil Survey Division Staff, 1993) and in the “Field Book for Describing and Sampling Soils” (Schoeneberger and others, 2002). Many of the technical terms used in the descriptions are defined in “Soil Taxonomy” (Soil Survey Staff, 1999) and in “Keys to Soil Taxonomy” (Soil Survey Staff, 1998). Unless otherwise indicated, colors in the descriptions are for moist soil. Following the pedon description is the range of important characteristics of the soils in the series.

Albertville Series

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Hills
Parent material: Residuum from shale or interbedded shale and sandstone
Depth class: Deep
Drainage class: Moderately well drained
Seasonal high water table: Apparent; at a depth of 2.5 to 3.5 feet
Permeability: Moderately slow
Slope range: 2 to 15 percent
Classification: Fine, mixed, semiactive, thermic Oxyaquic Hapludults

Geographically Associated Soils

- Capshaw soils, which have limestone bedrock at a depth of 40 to 80 inches
- Conasauga soils, which have shale bedrock at a depth of 20 to 40 inches
- Cunningham soils, which are well drained and have B horizons with a hue of 7.5YR or redder and have a slow permeability
- Enders soils, which are well drained and have B horizons with a hue of 5YR or redder and have a very slow permeability
- Montevallo soils, which are well drained and have shale bedrock at a depth of 10 to 20 inches
- Sipsey soils, which are well drained and have less than 35 percent clay in the control section and have interbedded sandstone and shale bedrock at a depth of 20 to 40 inches
- Townley soils, which are well drained and have shale or interbedded sandstone and shale bedrock at a depth of 20 to 40 inches

Typical Pedon

Albertville silt loam, 6 to 15 percent slopes; 2.0 miles south on Georgia Highway 225 from intersection of Georgia Highway 52 Alternate and Georgia Highway 225 at Spring Place, 1.0 mile southeast on Spring Place Smyrna Road, 1.6 miles south on Bishop Pond Road, 0.9 mile south on Smyrna Church Road, 150 feet east of Smyrna Church Road, and 100 feet north of dirt road; Murray County, Georgia; USGS topographic quadrangle, Calhoun NE, GA (1972); lat. 34 degrees 42 minutes 44 seconds N. and long. 84 degrees 48 minutes 12 seconds W.

A—0 to 6 inches; yellowish brown (10YR 5/4) silt loam; weak fine granular structure; very friable; many very fine and fine and common medium roots; moderately acid; clear smooth boundary.

BE—6 to 9 inches; brownish yellow (10YR 6/6) silty clay loam; common medium distinct pale yellow (2.5Y 7/4) mottles; weak medium subangular blocky structure; friable; common very fine and fine and few medium roots; moderately acid; clear smooth boundary.

Bt1—9 to 24 inches; brownish yellow (10YR 6/8) silty clay; few medium prominent pale yellow (2.5Y 7/4) mottles; weak medium subangular blocky structure; firm; few fine

and medium roots; few distinct and common faint clay films on faces of peds; common medium prominent red (2.5YR 4/8) masses of oxidized iron; very strongly acid; gradual wavy boundary.

Bt2—24 to 35 inches; brownish yellow (10YR 6/8) silty clay; moderate medium subangular blocky structure; firm; few fine roots; common distinct clay films on faces of peds; few fine shale fragments; common medium prominent red (2.5YR 4/8) and few fine faint strong brown (7.5YR 5/8) masses of oxidized iron; very strongly acid; gradual wavy boundary.

Bt3—35 to 47 inches; brownish yellow (10YR 6/8) silty clay; moderate medium subangular blocky structure; firm; common distinct clay films on faces of peds; few fine and medium shale fragments; common medium prominent red (2.5YR 4/8) and few medium faint strong brown (7YR 5/8) masses of oxidized iron; few medium prominent very pale brown (10YR 8/2) iron depletions; very strongly acid; gradual wavy boundary.

Cr—47 to 60 inches; multicolored, rippable shale bedrock.

Range in Characteristics

Thickness of solum: 40 to 60 inches
Depth to soft bedrock: 40 to 60 inches
Depth to hard bedrock: More than 60 inches
Content of rock fragments: 0 to 15 percent throughout, except the layer directly above the rippable bedrock, which ranges up to 40 percent
Reaction: Very strongly acid throughout, except where lime has been applied

A horizon:
Color—hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 2 to 4

BE horizon (where present):
Color—hue of 7.5YR or 10YR, value of 5 to 7, and chroma of 4 or 6
Texture—silt loam or silty clay loam
Mottles—common in shades of yellow

Bt horizon (upper part):
Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 6 or 8
Texture—silty clay loam, clay loam, or silty clay
Mottles—few to common in shades of red, yellow, brown, and gray

Bt horizon (lower part):
Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 6 or 8
Texture—silty clay loam, clay loam, or silty clay
Redoximorphic features—none to common in shades of red, yellow, brown, and gray

Cr horizon:
Type of bedrock—multicolored, rippable shale

Note: The Albertville soils in this survey area are taxadjuncts to the series because they have a zone of seasonal saturation (seasonal high water table) within 40 inches of the surface, which is not typical for the series. Albertville soils in the survey area are moderately well drained, whereas they are generally well drained.

Allen Series

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Ridges

Parent material: Colluvium and residuum of sandstone and shale
Depth class: Very deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Slope range: 2 to 30 percent slopes
Classification: Fine-loamy, siliceous, semiactive, thermic Typic Paleudults

Geographically Associated Soils

- Enders soils, which have more than 35 percent clay in the control section and have shale bedrock at a depth of 40 to 60 inches
- Holston soils, which have B horizons with a hue of 7.5YR or yellower
- Nauvoo soils, which have sandstone bedrock at a depth of 40 to 60 inches
- Nella soils, which have 15 to 35 percent rock fragments throughout the profile
- Panama soils, which have more than 35 percent rock fragments in the control section

Typical Pedon

Allen loam, 15 to 30 percent slopes; 0.3 mile south of Catoosa-Whitfield County line on Old Ringgold Road, 0.4 mile west on Bucker Road, in road cut on west side of road; Whitfield County, Georgia; USGS topographic quadrangle, Tunnel Hill, GA (1972); lat. 34 degrees 48 minutes 58 seconds N. and long. 85 degrees 06 minutes 03 seconds W.

Ap—0 to 5 inches; brown (7.5YR 5/4) loam; weak fine granular structure; very friable; common very fine, fine, medium, and coarse roots; 10 percent sandstone fragments; very strongly acid; clear wavy boundary.

BA—5 to 14 inches; yellowish red (5YR 5/6) clay loam; weak fine subangular blocky structure; friable; common very fine, fine, medium, and coarse roots; few faint clay films on faces of peds; 10 percent sandstone fragments; very strongly acid; gradual wavy boundary.

Bt1—14 to 33 inches; red (2.5YR 4/6) clay loam; weak medium subangular blocky structure; friable; many very fine, fine, medium, and coarse roots; common faint and few distinct clay films on faces of peds; 10 percent sandstone fragments; very strongly acid; gradual wavy boundary.

Bt2—33 to 51 inches; red (2.5YR 4/8) clay loam; moderate medium subangular blocky structure; friable; many very fine and fine and few medium and coarse roots; common distinct and faint clay films on faces of peds; 10 percent sandstone fragments; very strongly acid; gradual wavy boundary.

Bt3—51 to 60 inches; red (2.5YR 4/8) clay; coarse medium subangular blocky structure; firm; few very fine and fine roots; common prominent clay films on faces of peds; 5 percent sandstone fragments; very strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Content of rock fragments: 0 to 15 percent throughout
Reaction: Very strongly acid throughout

A or Ap horizon:
Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 3 or 4

BA horizon (where present):
Color—hue of 5YR to 10YR, value of 4 or 5, and chroma of 4 or 6
Texture—loam or clay loam

Bt horizon (upper part):
Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 6 or 8
Texture—loam or clay loam
Mottles—none or few in shades of red, yellow, and brown

Bt horizon (lower part):
Color—hue of 2.5YR to 10YR, value of 5 or 6, and chroma of 8; or variegated in shades of red and brown
Texture—clay loam or clay
Mottles—few to common in shades of red and brown

Arkabutla Series

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Flood plains
Parent material: Alluvium primarily from sedimentary rocks but includes areas influenced by metamorphic and metasedimentary rocks
Depth class: Very deep
Drainage class: Somewhat poorly drained
Seasonal high water table: Apparent; at a depth of 1.0 foot to 1.5 feet
Permeability: Moderate
Slope range: 0 to 2 percent
Classification: Fine-silty, mixed, active, nonacid, thermic Fluvaquentic Endoaquepts

Geographically Associated Soils

- Chenneby soils, which do not have a dominantly gray subsoil within 20 inches of the surface
- Docena soils, which are on upland flats, toeslopes, and drainageways and are moderately well drained
- Ketona soils, which have more than 35 percent clay in the control section and are poorly drained
- Shellbluff soils, which are well drained
- Whitwell soils, which are on stream terraces and flood plains and are moderately well drained

Typical Pedon

Arkabutla silt loam, 0 to 2 percent slopes, occasionally flooded; 9.2 miles south of Georgia-Tennessee state line on Georgia Highway 71, about 0.9 mile east on field road, 1,000 feet southeast of road in Coahulla Creek flood plain; Whitfield County, Georgia; USGS topographic quadrangle, Dalton North, GA (1972); lat. 34 degrees 51 minutes 04 seconds N. and long. 84 degrees 55 minutes 40 seconds W.

Ap—0 to 6 inches; brown (10YR 4/3) silt loam; weak fine granular structure; very friable; common fine roots; moderately acid; abrupt smooth boundary.
AB—6 to 13 inches; brown (10YR 5/3) silt loam; weak medium subangular blocky structure; friable; few very fine and fine roots; few fine distinct grayish brown (2.5Y 5/2) iron depletions; moderately acid; gradual wavy boundary.
Bw—13 to 18 inches; brown (10YR 5/3) silt loam; weak medium subangular blocky structure; friable; few very fine and fine roots; few medium faint dark yellowish brown (10YR 4/4) masses of oxidized iron; common medium distinct grayish brown (2.5Y 5/2) iron depletions; moderately acid; clear wavy boundary.
Bg1—18 to 21 inches; grayish brown (2.5Y 5/2) silty clay loam; weak medium subangular blocky structure; friable; few very fine and fine roots; few medium faint

pale brown (10YR 6/3) and few fine distinct yellowish brown (10YR 5/6) masses of oxidized iron; very strongly acid; gradual wavy boundary.

Bg2—21 to 31 inches; grayish brown (2.5Y 5/2) silty clay loam; weak medium subangular blocky structure; friable; few very fine and fine roots; common medium distinct light yellowish brown (2.5Y 6/4) and few fine prominent strong brown (7.5YR 5/8) masses of oxidized iron; very strongly acid; gradual wavy boundary.

Bg3—31 to 38 inches; gray (5Y 6/1) silty clay loam; weak medium subangular blocky structure; friable; few very fine and fine roots; few medium prominent yellowish brown (10YR 5/8) and common medium prominent light yellowish brown (2.5Y 6/4) masses of oxidized iron; very strongly acid; gradual wavy boundary.

Bg4—38 to 63 inches; gray (5Y 5/1) silty clay loam; weak medium subangular blocky structure; friable; few very fine and fine roots; many medium prominent yellowish brown (10YR 5/6) and few medium prominent light yellowish brown (2.5Y 6/4) masses of oxidized iron; very strongly acid.

Range in Characteristics

Thickness of the solum: 40 to more than 60 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Content of rock fragments: 0 to 5 percent throughout
Reaction: Very strongly acid or strongly acid throughout, except where lime has been applied
Other distinctive features: Few iron-manganese concretions in lower profile of some pedons

Ap horizon:
Color—hue of 10YR, value of 4 or 5, and chroma of 3

AB horizon (where present):
Color—hue of 10YR, value of 4 or 5, and chroma of 3
Texture—silt loam or loam
Redoximorphic features—few in shades of brown

Bw horizon:
Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 3; or variegated in shades of brown, gray, and yellow
Texture—silt loam or silty clay loam
Redoximorphic features—few to many in shades of brown, gray, and yellow

Bg horizon:
Color—hue of 10YR to 5Y, value 5 or 6, and chroma of 2 or less; or variegated in shades of brown and gray
Texture—silt loam or silt clay loam
Redoximorphic features—few to many in shades of brown and gray

BC horizon (where present):
Color—hue of 10YR, value of 5, and chroma of 2; or variegated in shades of brown and gray
Texture—silt loam or silty clay loam
Redoximorphic features—few to many in shades of brown and gray

Note: The Arkabutla soils in this survey area are taxadjuncts to the series because they have a pH that is greater than 5.0 in the control section. This difference does not significantly affect the use and management of these soils.

Bodine Series

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Ridges
Parent material: Residuum from cherty limestone
Depth class: Very deep
Drainage class: Somewhat excessively drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderately rapid
Slope range: 6 to 60 percent
Classification: Loamy-skeletal, siliceous, semiactive, thermic Typic Paleudults

Geographically Associated Soils

- Dewey soils, which have more than 35 percent clay and less than 15 percent chert fragments in the control section
- Guthrie soils, which are on flood plains, on flats, and in depressions and are poorly drained
- Fullerton soils, which have more than 35 percent clay in the control section and have 15 to 35 percent chert fragments throughout the profile
- Minvale and Shack soils, which have 15 to 35 percent chert fragments throughout the profile
- Wax soils, which are in drainageways and are moderately well drained

Typical Pedon

Bodine very gravelly silt loam, 6 to 15 percent slopes; 0.8 mile north of Whitfield-Walker county line on Georgia Highway 201, about 1.0 mile east on Lowery Road, 0.1 mile north on Utility Road, 0.5 mile east on Lindsey Memorial Road, in road cut on north side of road; Whitfield County, Georgia; USGS topographic quadrangle, Villanow, GA (1983); lat. 34 degrees 43 minutes 51 seconds N. and long. 85 degrees 04 minutes 51 seconds W.

Ap—0 to 4 inches; pale brown (10YR 6/3) very gravelly silt loam; weak fine granular structure; very friable; common very fine, fine, medium, and coarse roots; 55 percent chert fragments; very strongly acid; clear wavy boundary.

E—4 to 16 inches; light yellowish brown (10YR 6/4) very gravelly silt loam; weak medium granular structure and weak fine subangular blocky structure; friable; few very fine, fine, medium, and coarse roots; 50 percent chert fragments; very strongly acid; gradual wavy boundary.

Bt1—16 to 26 inches; light brown (7.5YR 6/4) extremely gravelly silty clay loam; moderate medium subangular blocky structure; friable; few very fine, fine, medium, and coarse roots; few faint clay films on faces of peds; 75 percent chert fragments; very strongly acid; gradual wavy boundary.

Bt2—26 to 60 inches; reddish yellow (7.5YR 6/6) extremely gravelly clay loam; common medium distinct very pale brown (10YR 7/4) and common fine faint yellowish red (5YR 5/6) mottles; strong medium subangular blocky structure; friable; few very fine, fine, medium, and coarse roots; few distinct and common faint clay films on faces of peds; 75 percent chert fragments; very strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Content of rock fragments: 35 to 70 percent chert fragments in the A and E horizons and 60 to 80 percent in the Bt horizons
Reaction: Very strongly acid throughout

A or Ap horizon:
Color—hue of 10YR or 2.5Y, value of 3 to 6, and chroma of 2 or 3

E horizon:
Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 4
Texture—extremely gravelly silt loam or very gravelly silt loam

Bt horizon (upper part):
Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 4 to 8
Texture—extremely gravelly loam, extremely gravelly silty clay loam, or extremely gravelly clay loam
Mottles—none to common in shades of red, yellow, and brown

Bt horizon (lower part):
Color—hue of 5YR to 10YR, value of 5 or 6, and chroma of 4 to 8
Texture—extremely gravelly loam, extremely gravelly silty clay loam, or extremely gravelly clay loam
Mottles—none to common in shades of red, yellow, and brown

Capshaw Series

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Stream terraces, depressions, and flats
Parent material: Alluvium over clayey residuum weathered from limestone
Depth class: Deep or very deep
Drainage class: Moderately well drained
Seasonal high water table: Apparent; at a depth of 2.0 to 3.5 feet
Permeability: Slow
Slope range: 0 to 6 percent
Classification: Fine, mixed, semiactive, thermic Oxyaquic Hapludalfs

Geographically Associated Soils

- Albertville soils, which are well drained and have shale bedrock at a depth of 40 to 60 inches
- Conasauga soils, which have shale bedrock at a depth of 20 to 40 inches
- Docena soils, which have a fine-silty texture
- Ketona soils, which are poorly drained
- Whitwell soils, which have less than 35 percent clay in the control section

Typical Pedon

Capshaw silt loam, 2 to 6 percent slopes; 0.5 mile south of Georgia-Tennessee state line on Sugar Creek Road, 1,350 feet west of road; Murray County, Georgia; USGS topographic quadrangle, Beaverdale, GA-TN (1972); lat. 34 degrees 58 minutes 48 seconds N. and long. 84 degrees 48 minutes 28 seconds W.

A—0 to 7 inches; brown (10YR 5/3) silt loam; many medium faint very pale brown (10YR 7/3) mottles; weak medium granular structure; very friable; many fine and medium and common coarse roots; few small pebbles; strongly acid; clear smooth boundary.
Bt1—7 to 14 inches; brownish yellow (10YR 6/6) silty clay loam; weak medium subangular blocky structure; friable; common fine and few medium roots; few faint clay films on faces of peds; few small pebbles; few fine distinct very pale brown (10YR 7/3) iron depletions; strongly acid; gradual wavy boundary.
Bt2—14 to 22 inches; brownish yellow (10YR 6/8) silty clay; moderate medium subangular blocky structure; firm; few fine and medium roots; common faint and

few distinct clay films on faces of peds; few small pebbles; few medium prominent light yellowish brown (10YR 6/4) iron depletions; strongly acid; gradual wavy boundary.

Bt3—22 to 35 inches; brownish yellow (10YR 6/8) clay; moderate coarse subangular blocky structure; very firm; few fine and medium roots; common distinct clay films on faces of peds; few soft black manganese concretions; common medium faint reddish yellow (7.5YR 6/8) masses of oxidized iron; few medium prominent light yellowish brown (10YR 6/4) and few medium prominent light gray (10YR 7/2) iron depletions; strongly acid; gradual wavy boundary.

Bt4—35 to 55 inches; brownish yellow (10YR 6/8) clay; strong coarse subangular blocky structure; very firm; few fine and medium roots; common distinct and few prominent clay films on faces of peds; common soft black manganese concretions; many medium faint strong brown (7.5YR 5/8) masses of oxidized iron; common medium faint light gray (10YR 7/2) and few medium prominent light yellowish brown (10YR 6/4) iron depletions; moderately acid; abrupt wavy boundary.

R—55 inches; hard limestone bedrock.

Range in Characteristics

Thickness of the solum: 40 to 60 inches
Depth to soft bedrock: 40 to more than 60 inches
Depth to hard bedrock: 40 to more than 60 inches
Content of rock fragments: 0 to 10 percent throughout
Reaction: Strongly acid or moderately acid throughout

A or Ap horizon:
Color—hue of 10YR, value of 4 or 5, and chroma of 2 to 4
Mottles—in shades of brown

BA horizon (where present):
Color—hue of 10YR, value of 5 or 6, and chroma of 4 or 6
Texture—silt loam

Bt horizon:
Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 4 to 8
Texture—silty clay loam, silty clay, or clay
Redoximorphic features—few to many in shades of red, yellow, brown, and gray; few to common soft black manganese concretions

BC or C horizon (where present):
Color—hue of 10YR, value of 5 or 6, and chroma of 2 to 6; or variegated in shades of yellow, brown, and gray
Texture—clay loam or clay
Redoximorphic features—few to many in shades of yellow, brown, and gray

R horizon:
Type of bedrock—hard limestone

Cataska Series

Major land resource area: Southern Blue Ridge
Landform: Mountains
Parent material: Residuum from phyllite, graywacke, and metasandstone
Depth class: Shallow
Drainage class: Excessively drained

Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderately rapid
Slope range: 5 to 70 percent
Classification: Loamy-skeletal, mixed, semiactive, mesic, shallow Typic Dystrudepts

Geographically Associated Soils

- Jefferson, Junaluska, and Lily soils, which have less than 35 percent rock fragments in the control section and are deeper than 20 inches to bedrock
- Shelocta soils, which are very deep and are on footslopes and benches
- Suches soils, which are very deep, are well drained, and are on flood plains
- Tsali soils, which have an argillic horizon and have less than 35 percent rock fragments in the control section

Typical Pedon

Cataska channery silt loam, 5 to 25 percent slopes; 1.0 mile east on Georgia Highway 52 from intersection of U.S. Highway 411 and Georgia Highway 52, about 5.0 miles north on Holly Creek and Cool Springs Road, 3.0 miles east on dirt road, north of road; Murray County, Georgia; USGS topographic quadrangle, Crandall, GA (1979); lat. 34 degrees 46 minutes 51 seconds N. and long. 84 degrees 42 minutes 04 seconds W.

A—0 to 2 inches; very dark grayish brown (10YR 3/2) channery silt loam; weak fine granular structure; very friable; many very fine, fine, medium, and coarse roots; 15 percent phyllite channers; very strongly acid; clear smooth boundary.

Bw—2 to 16 inches; yellowish brown (10YR 5/4) very channery silt loam; weak fine granular structure and weak fine subangular blocky structure; very friable; many very fine and fine, common medium, and few coarse roots; 35 percent phyllite channers; very strongly acid; clear wavy boundary.

Cr—16 to 27 inches; grayish, rippable phyllite bedded at angles up to 45 degrees; abrupt wavy boundary.

R—27 inches; hard, grayish, fractured phyllite; bedded at angles up to 45 degrees.

Range in Characteristics

Thickness of the solum: 10 to 20 inches
Depth to soft bedrock: 10 to 20 inches
Depth to hard bedrock: 20 to more than 60 inches
Content of rock fragments: 15 to 45 percent in the A horizon and 35 to 45 percent in the Bw horizon
Reaction: Very strongly acid throughout

A horizon:
Color—hue of 7.5YR or 10YR, value of 3 or 4, and chroma of 2 or 3

Bw horizon:
Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 4 or 6
Texture—very channery silt loam or very channery loam

Cr horizon:
Type of bedrock—multicolored, rippable phyllite bedded at angles from 10 to 90 degrees

R horizon:
Type of bedrock—multicolored, hard, fractured phyllite bedded at angles from 10 to 90 degrees

Chenneby Series

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Flood plains
Parent material: Alluvium from metamorphic, metasedimentary, and sedimentary rocks
Depth class: Very deep
Drainage class: Somewhat poorly drained
Seasonal high water table: Apparent; at a depth of 1.5 to 2.5 feet
Permeability: Moderate
Slope range: 0 to 2 percent
Classification: Fine-silty, mixed, active, thermic Fluvaquentic Dystrudepts

Geographically Associated Soils

- Arkabutla soils, which have a dominantly gray subsoil within 20 inches of the surface
- Docena soils, which are on upland flats, toeslopes, and drainageways and are moderately well drained
- Ketona soils, which have more than 35 percent clay in the control section and are poorly drained
- Shellbluff soils, which are well drained
- Subligna soils, which have more than 35 percent rock fragments in the control section and are well drained
- Whitwell soils, which are on stream terraces and flood plains and are moderately well drained

Typical Pedon

Chenneby silt loam, 0 to 2 percent slopes, occasionally flooded; 3.2 miles northeast on Georgia Highway 286 from intersection with U.S. Highway 76, about 3.0 miles northeast on Lower Kings Bridge Road, 1,200 feet north and 520 feet east of bridge over Conasauga River; Whitfield County, Georgia; USGS topographic quadrangle, Chatsworth, GA (1972); lat. 34 degrees 51 minutes 23 seconds N. and long. 84 degrees 50 minutes 20 seconds W.

Ap—0 to 6 inches; brown (10YR 4/3) silt loam; weak fine granular structure; very friable; common fine and few medium roots; strongly acid; abrupt smooth boundary.

AB—6 to 11 inches; brown (10YR 5/3) silt loam; many medium faint light olive brown (2.5Y 5/4) mottles; weak fine subangular blocky structure; friable; common very fine and fine roots; moderately acid; abrupt smooth boundary.

Bw1—11 to 20 inches; light olive brown (2.5Y 5/4) silt loam; weak medium subangular blocky structure; friable; common very fine and fine roots; few quartz gravel; common fine distinct yellowish brown (10YR 5/6) masses of oxidized iron; common medium faint olive (5Y 5/3) iron depletions; strongly acid; gradual wavy boundary.

Bw2—20 to 30 inches; variegated pale olive (5Y 6/3), light brownish gray (2.5Y 6/2), and yellowish brown (10YR 5/6) silt loam; weak prismatic structure parting to weak medium subangular blocky; friable; few very fine and fine roots; very few faint silt coats on faces of peds and in root channels; few fine and medium irregular soft iron-manganese concretions; few quartz gravel; very strongly acid; gradual wavy boundary.

Bw3—30 to 55 inches; variegated light brownish gray (2.5Y 6/2), olive yellow (2.5Y 6/6), and yellowish brown (10YR 5/6) silt loam; weak coarse prismatic structure parting to weak medium subangular blocky; friable; few very fine and fine roots; very few faint silt coats on faces of peds and in root channels; few medium and

coarse irregular soft iron-manganese concretions; few quartz gravel; very strongly acid; gradual wavy boundary.

Bw4—55 to 82 inches; variegated gray (5Y 6/1), yellowish brown (10YR 5/8), and light olive brown (2.5Y 5/6) loam; weak medium subangular blocky structure; friable; few very fine and fine roots; very few faint silt coats on faces of peds and in root channels; many medium irregular soft iron-manganese concretions; few quartz gravel; strongly acid.

Range in Characteristics

Thickness of the solum: 48 to more than 60 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Content of rock fragments: 0 to 5 percent throughout
Reaction: Very strongly acid to moderately acid throughout, except where lime has been applied
Other distinctive features: Few to many iron-manganese concretions in the B and C horizons

A or Ap horizon:
Color—hue of 10YR, value of 4 or 5, and chroma of 3 or 4

AB horizon (where present):
Color—hue of 10YR or 2.5Y, value of 5, and chroma of 3 or 4
Texture—silt loam or loam
Mottles—few to many in shades of brown

Bw horizon (where present):
Color—hue of 10YR to 5Y, value of 5 or 6, and chroma of 1 to 6; or variegated in shades of red, yellow, brown, olive, and gray
Texture—silt loam, loam, silty clay loam, or clay loam
Redoximorphic features—common to many in shades of red, yellow, brown, olive, and gray; few soft iron-manganese concretions

BC horizon (where present):
Color—variegated in shades of brown and gray
Texture—silt loam, loam, or clay loam

Cg horizon (where present):
Color—hue of 10YR, value of 6, and chroma of 2; or variegated in shades of brown, yellow, and gray
Texture—loam or silty clay loam
Redoximorphic features—common to many in shades of brown, yellow, and gray

Cheoah Series

Major land resource area: Southern Blue Ridge
Landform: Mountains
Parent materials: Residuum and colluvium from metasedimentary and metamorphic rock
Depth class: Deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderately rapid
Slope range: 15 to 35 percent
Classification: Fine-loamy, isotic, mesic Humic Dystrudepts

Geographically Associated Soils

- Edneytown, Junaluska, Lily, Pigeonroost, and Tsali soils, which have argillic horizons and do not have an umbric epipedon

Typical Pedon

Cheoah loam, in an area of Cheoah-Edneytown complex, 15 to 35 percent slopes; 1.5 miles east of intersection of Georgia Highway 286 and U.S. Highway 411 in Eton, Georgia, 4.0 miles northeast on Old C.C.C. Camp Road, 3.0 miles east on unimproved Forest Service Road until road splits, 2.0 miles northeast until road splits again, 4.0 miles northeast on Lake Conasauga Forest Service Road, in road cut on south side of road along the Murray-Gilmer county line just past residential development; Murray County, Georgia; USGS topographic quadrangle, Dyer Gap, GA (1959); lat. 34 degrees 44 minutes 52 seconds N. and long. 84 degrees 40 minutes 15 seconds W.

A1—0 to 7 inches; black (10YR 2/1) loam; weak fine and medium granular structure; very friable; many very fine, fine, medium, and coarse roots; 5 percent phyllite channers; strongly acid; gradual wavy boundary.

A2—7 to 12 inches; very dark grayish brown (10YR 3/2) loam; weak fine and medium granular structure; very friable; many very fine, fine, medium, and coarse roots; 5 percent phyllite channers; strongly acid; clear wavy boundary.

BA—12 to 16 inches; dark yellowish brown (10YR 4/4) loam; common medium distinct very dark grayish brown (10YR 3/2) mottles; weak fine subangular blocky structure; very friable; many very fine, fine, medium, and coarse roots; 5 percent phyllite channers; strongly acid; clear wavy boundary.

Bw—16 to 32 inches; dark yellowish brown (10YR 4/6) loam; few medium prominent very dark grayish brown (10YR 3/2) mottles; weak fine and medium subangular blocky structure; friable; common very fine, fine, and medium and few coarse roots; 10 percent phyllite channers; strongly acid; clear wavy boundary.

BC—32 to 54 inches; dark yellowish brown (10YR 4/6) loam; common coarse prominent grayish brown (10YR 5/2) mottles; weak fine and medium subangular blocky structure; very friable; common very fine, fine, and medium roots; 5 percent phyllite channers; strongly acid; gradual wavy boundary.

C—54 to 59 inches; dark yellowish brown (10YR 4/4) loam; many fine prominent very pale brown (10YR 8/2) mottles; massive; very friable; 5 percent phyllite channers; strongly acid; abrupt wavy boundary.

Cr—59 to 65 inches; multicolored, rippable phyllite and metasandstone bedrock

Range in Characteristics

Thickness of the solum: 40 to 56 inches
Depth to soft bedrock: 40 to 60 inches
Depth to hard bedrock: More than 60 inches
Content of rock fragments: 5 to 25 percent throughout
Reaction: Strongly acid throughout

A horizon:
Color—hue of 10YR, value of 2 or 3, and chroma of 1 or 2

AB or BA horizon (where present):
Color—hue of 10YR, value of 4, and chroma of 3 or 4
Mottles—none to common in shades of brown and gray

Bw horizon:
Color—hue of 10YR, value of 4 or 5, and chroma of 4 or 6
Texture—sandy loam or loam
Mottles—none to common in shades of brown and black

BC horizon (where present):
Color—hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 3 to 6
Texture—sandy loam or loam
Mottles—few to common in shades of brown

C horizon:
Color—hue of 10YR, value of 4 or 5, and chroma of 4 or 6; or variegated in shades of brown, gray, and white
Texture—fine sandy loam, sandy loam, or loam
Mottles—few to many mottles in shades of brown, gray, and white

Cr horizon:
Type of bedrock—multicolored, rippable metasedimentary and metamorphic rock

Conasauga Series

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Hills
Parent material: Residuum from shale
Depth class: Moderately deep
Drainage class: Moderately well drained
Seasonal high water table: Apparent; at a depth of 1.5 to 3.0 feet
Permeability: Slow
Slope range: 2 to 10 percent
Classification: Fine, mixed, semiactive, thermic Oxyaquic Hapludalfs

Geographically Associated Soils

- Albertville, Cunningham, and Enders soils, which are well drained and have shale bedrock at a depth of 40 to 60 inches
- Capshaw soils, which have limestone bedrock at a depth of 40 to 80 inches
- Docena soils, which are fine-silty and are on flats, drainageways, and stream terraces
- Montevallo soils, which are well drained and have shale bedrock at a depth of 10 to 20 inches
- Townley soils, which are well drained and have B horizons with a hue of 7.5YR or redder

Typical Pedon

Conasauga silt loam, in an area of Docena-Conasauga complex, 2 to 6 percent slopes; 2.2 miles south of Georgia-Tennessee state line on Georgia Highway 71, about 0.9 mile northeast on Old Dalton-Cleveland Highway, 1.8 miles east on Hopewell Road, 0.3 mile northeast on Seaton Road, 75 feet west of intersection of Seaton Road and Baldwin Road, in road cut on south side of Baldwin Road; Whitfield County, Georgia; USGS topographic quadrangle, Cohutta, GA-TN (1972); lat. 34 degrees 58 minutes 15 seconds N. and long. 84 degrees 54 minutes 24 seconds W.

Ap—0 to 3 inches; brown (10YR 4/3) silt loam; weak fine granular structure; very friable; common very fine and fine roots; very strongly acid; clear smooth boundary.
E—3 to 6 inches; yellowish brown (10YR 5/4) silt loam; weak medium granular structure; very friable; common very fine and fine roots; very strongly acid; gradual smooth boundary.
BE—6 to 15 inches; yellowish brown (10YR 5/4) silty clay loam; moderate medium subangular blocky structure; friable; few fine roots; very strongly acid; clear smooth boundary.

Bt1—15 to 28 inches; light olive brown (2.5Y 5/6) silty clay; strong medium subangular blocky structure; firm; few fine roots; common distinct clay films on faces of peds; common medium faint strong brown (7.5YR 5/6) and common medium prominent yellowish red (5YR 5/6) masses of oxidized iron; very strongly acid; gradual wavy boundary.

Bt2—28 to 34 inches; light olive brown (2.5Y 5/6) silty clay; moderate medium subangular blocky structure; firm; common distinct clay films on faces of peds; common medium faint strong brown (7.5YR 5/6) masses of oxidized iron; few medium prominent light gray (10YR 7/1) iron depletions; moderately acid; clear irregular boundary.

BC—34 to 38 inches; variegated light olive brown (2.5Y 5/6), strong brown (7.5YR 5/6), and light gray (10YR 7/1) silty clay loam; weak medium subangular blocky structure; firm; moderately acid; abrupt irregular boundary.

Cr—38 to 60 inches; multicolored, rippable shale bedrock bedded at angles from 35 to 90 degrees.

Range in Characteristics

Thickness of the solum: 20 to 40 inches
Depth to soft bedrock: 20 to 40 inches
Depth to hard bedrock: More than 60 inches
Content of rock fragments: 0 to 5 percent, except in the BC horizon, which ranges from 0 to 20 percent
Reaction: Very strongly acid to moderately acid throughout, except where lime has been applied

A horizon:
Color—hue of 10YR, value of 4 or 5, and chroma of 3 or 4

E or BE horizon (where present):
Color—hue of 10YR or 2.5Y, value of 4 to 7, and chroma of 4 or 6

Bt horizon:
Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 6 or 8
Texture—silty clay loam or silty clay
Redoximorphic features—few to common in shades of red, yellow, brown, and gray

BC horizon (where present):
Color—hue of 10YR, value of 6, and chroma of 8; or variegated in shades of yellow, brown, and gray
Redoximorphic features—common to many in shades of yellow, brown, and gray

Cr horizon:
Type of bedrock—multicolored, rippable shale bedded at angles from 35 to 90 degrees

Craigsville Series

Major land resource area: Southern Blue Ridge
Landform: Flood plains
Parent material: Alluvium washed from sandy and gravelly uplands
Depth class: Very deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderately rapid or rapid

Slope range: 0 to 5 percent
Classification: Loamy-skeletal, mixed, superactive, mesic Fluventic Dystrudepts

Geographically Associated Soils

- Shelocta soils, which are on footslopes and benches and have less than 35 percent rock fragments in the control section
- Suches soils, which have less than 15 percent rock fragments in the control section

Typical Pedon

Craigsville gravelly sandy loam, 0 to 5 percent slopes, occasionally flooded; 4.1 miles south on Mountain Road from intersection of Georgia Highway 52 and Mountain Road, 4.2 miles east on Peoples Lake Road, approximately 400 feet north of road after crossing bridge over Rock Creek; Murray County, Georgia; USGS topographic quadrangle, Ramhurst, GA (1979); lat. 33 degrees 44 minutes 37 seconds N. and long. 84 degrees 40 minutes 22 seconds W.

A—0 to 4 inches; very dark grayish brown (10YR 3/2) gravelly sandy loam; weak medium granular structure; very friable; many very fine, fine, medium, and coarse roots; 15 percent gravel; strongly acid; clear wavy boundary.

Bw—4 to 24 inches; dark yellowish brown (10YR 4/4) extremely gravelly sandy loam; weak medium granular structure and weak fine subangular blocky structure; friable; many very fine, fine, medium, and coarse roots; 60 percent gravel; strongly acid; gradual wavy boundary.

C1—24 to 33 inches; dark yellowish brown (10YR 4/4) extremely gravelly coarse sandy loam; massive; very friable; common very fine and fine and few medium and coarse roots; 70 percent gravel; strongly acid; gradual wavy boundary.

C2—33 to 60 inches; brown (10YR 4/3) extremely gravelly coarse sandy loam; massive; very friable; common very fine and fine and few medium and coarse roots; 70 percent gravel; strongly acid.

Range in Characteristics

Thickness of the solum: 20 to 30 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Content of rock fragments: 15 to 70 percent throughout, except for the A horizon, which ranges from 15 to 60 percent
Reaction: Strongly acid throughout

A horizon:
Color—hue of 10YR, value of 3 or 4, and chroma of 2 to 4

Bw horizon:
Color—hue of 10YR, value of 4 or 5, and chroma of 4 or 6
Texture—extremely gravelly sandy loam or gravelly sandy loam

C horizon:
Color—hue of 7.5YR or 10YR, value of 4, and chroma of 3 to 6
Texture—extremely gravelly coarse sandy loam or very gravelly sandy loam

Cunningham Series

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Ridges
Parent material: Residuum from interbedded shale and sandstone
Depth class: Deep
Drainage class: Well drained

Depth to seasonal high water table: More than 6.0 feet
Permeability: Slow
Slope range: 2 to 60 percent
Classification: Fine, mixed, semiactive, thermic Typic Hapludults

Geographically Associated Soils

- Albertville soils, which have B horizons with a hue of 7.5YR or yellower and have a moderately slow permeability
- Conasauga soils, which are moderately well drained and have shale bedrock at a depth of 20 to 40 inches
- Enders soils, which have B horizons with a hue of 5YR or redder and have a very slow permeability
- Montevallo soils, which have shale bedrock at a depth of 10 to 20 inches
- Townley soils, which have shale or interbedded sandstone and shale bedrock at a depth of 20 to 40 inches

Typical Pedon

Cunningham silt loam, 6 to 15 percent slopes; 2.8 miles north on Georgia Highway 411 from Gordon county line, 0.3 mile east on Coniston Road; Murray County, Georgia; USGS topographic quadrangle, Ramhurst, GA (1971); lat. 34 degrees 38 minutes 15 seconds N. and long. 84 degrees 42 minutes 45 seconds W.

Ap—0 to 8 inches; yellowish brown (10YR 5/4) silt loam; weak fine granular structure; very friable; many very fine and fine and common medium roots; 10 percent fine gravel; moderately acid; clear wavy boundary.

BA—8 to 11 inches; brownish yellow (10YR 6/6) silty clay loam; few fine faint strong brown (7.5YR 5/6) mottles; weak fine subangular blocky structure; friable; many very fine and fine and few medium roots; strongly acid; clear wavy boundary.

Bt1—11 to 20 inches; strong brown (7.5YR 5/6) silty clay loam; weak medium subangular blocky structure; friable; few very fine, fine, and medium roots; common faint and few distinct clay films on faces of peds; strongly acid; clear wavy boundary.

Bt2—20 to 28 inches; yellowish red (5YR 5/6) silty clay; few fine faint red (2.5YR 4/6) mottles; moderate medium subangular blocky structure; friable; few very fine, fine, medium, and coarse roots; common distinct clay films on faces of peds; very strongly acid; gradual wavy boundary.

Bt3—28 to 36 inches; yellowish red (5YR 5/6) silty clay; common medium faint red (2.5YR 4/6) and common medium prominent brownish yellow (10YR 6/8) mottles; moderate medium subangular blocky structure; firm; few very fine, fine, medium, and coarse roots; common distinct clay films on faces of peds; very strongly acid; gradual wavy boundary.

BC—36 to 53 inches; variegated red (2.5YR 4/6), strong brown (7.5YR 5/6), brownish yellow (10YR 6/8), and very pale brown (10YR 8/4) channery silty clay; weak medium subangular blocky structure; friable; few fine roots; few faint and common distinct clay films on faces of peds; very strongly acid; gradual wavy boundary.

Cr—53 to 60 inches; multicolored, highly weathered shale bedrock.

Range in Characteristics

Thickness of the solum: 30 to 60 inches
Depth to soft bedrock: 40 to 60 inches
Depth to hard bedrock: More than 60 inches
Content of rock fragments: 0 to 10 percent in the A, BA, and upper Bt horizon; 10 to 25 percent in the lower Bt horizons; and 25 to 50 percent in the BC horizon
Reaction: Strongly acid or very strongly acid, except where lime has been applied

A or Ap horizon:
Color—hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 4 or 6

BA horizon (where present):
Color—hue of 10YR, value of 6, and chroma of 6

Bt horizon (upper part):
Color—hue of 2.5YR to 7.5YR, value of 4 or 5, and chroma of 6 or 8
Texture—silty clay loam or clay loam

Bt horizon (lower part):
Color—hue of 5YR, value of 5, and chroma of 6
Texture—channery silty clay, silty clay loam, or silty clay
Mottles—common in shades of red, yellow, and brown

BC horizon:
Color—hue of 2.5YR, value of 4, and chroma of 8; or variegated in shades of red, yellow, and brown
Texture—very channery silty clay loam or channery silty clay

Cr horizon:
Type of bedrock—multicolored, rippable shale

Dewey Series

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Ridges
Parent material: Alluvium and underlying residuum of limestone
Depth class: Very deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Slope range: 2 to 15 percent
Classification: Fine, kaolinitic, thermic Typic Paleudults

Geographically Associated Soils

- Bodine soils, which have less than 35 percent clay in the control section and have more than 35 percent rock fragments throughout the profile
- Enders soils, which have a very slow permeability and have shale bedrock at a depth of 40 to 60 inches
- Fullerton soils, which have 15 to 35 percent chert fragments in the control section
- Hanceville soils, which have dark red colors throughout the upper part of the subsoil and have sandstone bedrock at a depth of more than 60 inches
- Minvale and Shack soils, which have less than 35 percent clay and 15 to 35 percent chert fragments in the control section
- Wax soils, which have less than 35 percent clay in the control section, are in drainageways, and are moderately well drained
- Waynesboro soils, which have more than 20 percent sand in the control section

Typical Pedon

Dewey silt loam, 2 to 6 percent slopes; 2.1 miles south of Georgia-Tennessee state line on U.S. Highway 71, about 0.9 mile west on Wolfe Street, 1.8 miles south on Cohutta-Varnell Road, 0.2 mile west-northwest on Standifer Road, 350 feet west on Standifer Road in pasture; Whitfield County, Georgia; USGS topographic quadrangle, Cohutta, GA-TN (1979); lat. 34 degrees 56 minutes 29 seconds N. and long. 84 degrees 58 minutes 50 seconds W.

Ap—0 to 8 inches; reddish brown (2.5YR 4/3) silt loam; weak fine granular structure; very friable; many fine and medium and common coarse roots; slightly acid; clear smooth boundary.
Bt1—8 to 14 inches; dark red (2.5YR 3/6) silty clay; weak medium subangular blocky structure; very friable; common fine and medium and few coarse roots; few faint clay films on faces of peds; slightly acid; gradual smooth boundary.
Bt2—14 to 36 inches; red (2.5YR 4/6) clay; few medium prominent yellow (2.5Y 7/8) mottles; moderate medium subangular blocky structure; friable; common fine roots; few distinct clay films on faces of peds; strongly acid; gradual wavy boundary.
Bt3—36 to 48 inches; red (2.5YR 4/6) clay; common medium prominent brownish yellow (10YR 6/8) and few medium prominent yellow (2.5Y 7/8) mottles; moderate medium subangular blocky structure; firm; few fine and coarse roots; common faint and few distinct clay films on faces of peds; very strongly acid; gradual wavy boundary.
Bt4—48 to 60 inches; yellowish red (5YR 5/6) clay; common medium prominent brownish yellow (10YR 6/8) and yellow (2.5Y 7/8) mottles; moderate medium subangular blocky structure; firm; few fine roots; common distinct clay films on faces of peds; very strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Content of rock fragments: 0 to 15 percent throughout
Reaction: Strongly acid or very strongly acid, except where lime has been applied

Ap horizon:
Color—hue of 5YR or 7.5YR, value of 3 or 4, and chroma of 3 or 4

Bt horizon (upper part):
Color—hue of 2.5YR, value of 3 or 4, and chroma of 4 or 6
Texture—silty clay or clay
Mottles—none to few in shades of yellow

Bt horizon (lower part):
Color—hue of 2.5YR or 5YR, value of 3 to 5, and chroma of 6 or 8
Texture—silty clay or clay
Mottles—few to common in shades of red, yellow, and brown

Docena Series

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Flats, drainageways, and stream terraces
Parent material: Alluvium, colluvium, and shaly residuum
Depth class: Very deep
Drainage class: Moderately well drained
Seasonal high water table: Apparent; at a depth of 1.5 to 3.0 feet
Permeability: Slow
Slope range: 0 to 6 percent
Classification: Fine-silty, siliceous, subactive, thermic Aquic Hapludults

Geographically Associated Soils

- Arkabutla soils, which are on flood plains, have a dominantly gray subsoil within 20 inches of the surface, and are somewhat poorly drained

- Capshaw soils, which have more than 35 percent clay in the control section and have limestone bedrock at a depth of 40 to 80 inches
- Chenneby soils, which are on flood plains and are somewhat poorly drained
- Conasauga soils, which have more than 35 percent clay in the control section and have shale bedrock at a depth of 20 to 40 inches
- Ketona soils, which have more than 35 percent clay in the control section and are poorly drained
- Sequatchie soils, which are fine-loamy, have an umbric epipedon, and are well drained
- Shellbluff soils, which are on flood plains and are well drained
- Whitwell soils, which are fine-loamy

Typical Pedon

Docena silt loam, in an area of Docena-Conasauga complex, 2 to 6 percent slopes; 1.7 miles south of Georgia-Tennessee state line on Sugar Creek Road, 80 feet east of road; Murray County, Georgia; USGS topographic quadrangle, Beaverdale, GA (1977); lat. 34 degrees 58 minutes 02 seconds N. and long. 84 degrees 48 minutes 27 seconds W.

A—0 to 3 inches; brown (10YR 5/3) silt loam; weak medium granular structure; very friable; common fine and medium roots; very strongly acid; clear smooth boundary.

BA—3 to 7 inches; yellowish brown (10YR 5/4) silt loam; common medium faint light yellowish brown (10YR 6/4) mottles; weak medium subangular blocky structure; very friable; common fine and medium roots; strongly acid; clear smooth boundary.

Bt1—7 to 12 inches; yellowish brown (10YR 5/4) silty clay loam; moderate medium subangular blocky structure; friable; few fine roots; common medium faint pale brown (10YR 6/3) iron depletions; strongly acid; gradual smooth boundary.

Bt2—12 to 44 inches; light yellowish brown (10YR 6/4) silty clay loam; moderate medium subangular blocky structure; friable; few fine roots; few faint and distinct clay films on faces of peds; common fine distinct yellowish brown (10YR 5/6) masses of oxidized iron; common medium distinct light gray (10YR 7/2) iron depletions; strongly acid; clear smooth boundary.

BCg—44 to 52 inches; variegated light brownish gray (10YR 6/2), light gray (10YR 7/2), and strong brown (7.5YR 5/6) clay loam; weak medium subangular blocky structure; friable; moderately acid; clear smooth boundary.

BC—52 to 60 inches; variegated light brownish gray (10YR 6/2), yellowish brown (10YR 5/6), and reddish yellow (7.5YR 6/8) clay loam that has pockets of sandy clay loam; weak medium subangular blocky structure; friable to firm; 10 percent gravel; moderately acid.

Range in Characteristics

Thickness of the solum: 40 to 60 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Content of rock fragments: 0 to 15 percent throughout
Reaction: Very strongly acid to moderately acid throughout, except where lime has been applied

A or Ap horizon:
Color—hue of 10YR, value of 3 to 5, and chroma of 3 or 4

BA or BE horizon (where present):
Color—hue of 10YR, value of 5 or 6, and chroma of 4 or 6
Mottles—none to common in shades of yellow and brown

Bt horizon:
Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 4 to 8
Texture—silt loam or silty clay loam
Redoximorphic features—few to many in shades of red, yellow, brown, and gray

BC horizon (where present):
Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 6 or 8; or variegated in shades of brown, yellow, and gray
Texture—silty clay loam or clay loam
Redoximorphic features—common to many in shades of red, yellow, brown, and gray

BCg horizon (where present):
Color—hue of 10YR, value of 6 or 7, and chroma of 2 or less
Redoximorphic features—common to many in shades of brown and gray

Edneytown Series

Major land resource area: Southern Blue Ridge
Landform: Mountains
Parent material: Colluvium and residuum from gneiss, schist, and granite
Depth class: Very deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Slope range: 15 to 70 percent slopes
Classification: Fine-loamy, mixed, active, mesic Typic Hapludults

Geographically Associated Soils

- Cheoah soils, which have an umbric epipedon and do not have argillic horizons
- Junaluska, Lily, and Pigeonroost soils, which have bedrock at a depth of 20 to 40 inches
- Tsali soils, which have phyllite and metasandstone bedrock at a depth of 10 to 20 inches

Typical Pedon

Edneytown loam, 25 to 45 percent slopes, rubbly; 1.5 miles east of intersection of Georgia Highway 286 and U.S. Highway 411 in Eton, Georgia, 4.0 miles northeast on Old C.C.C. Camp Road, 3.0 miles east on unimproved Forest Service Road until road splits, 2.0 miles northeast until road splits again, 8.0 miles northeast on Lake Conasauga Forest Service Road, in Lake Conasauga camping area; Murray County, Georgia; USGS topographic quadrangle, Crandall, GA (1971); lat. 34 degrees 51 minutes 35 seconds N. and long. 84 degrees 38 minutes 57 seconds W.

A1—0 to 4 inches; very dark grayish brown (10YR 3/2) loam; weak fine and medium granular structure; very friable; many very fine, fine, medium, and coarse roots; 5 percent gravel; very strongly acid; gradual wavy boundary.
A2—4 to 7 inches; brown (10YR 4/3) loam; weak medium granular structure; very friable; many very fine, fine, medium, and coarse roots; 5 percent gravel; very strongly acid; gradual wavy boundary.
E—7 to 10 inches; dark yellowish brown (10YR 4/4) loam; weak fine subangular blocky structure; very friable; many very fine, fine, medium, and coarse roots; 10 to 15 percent gravel; very strongly acid; clear wavy boundary.
Bt1—10 to 20 inches; strong brown (7.5YR 4/6) sandy clay loam; weak fine and medium subangular blocky structure; friable; many very fine and fine, common

medium, and few coarse roots; common faint clay films on faces of peds; 10 percent gravel; very strongly acid; gradual wavy boundary.

Bt2—20 to 35 inches; strong brown (7.5YR 5/6) sandy clay loam; weak medium subangular blocky structure; friable; many very fine and fine, common medium, and few coarse roots; common faint clay films on faces of peds; 10 percent gravel; very strongly acid; gradual wavy boundary.

BC—35 to 45 inches; strong brown (7.5YR 5/6) sandy loam; weak fine and medium subangular blocky structure; very friable; common very fine and fine roots and few medium roots; few faint clay films on faces of peds; 10 percent gravel; very strongly acid; abrupt wavy boundary.

C—45 to 60 inches; yellowish brown (10YR 5/6) loamy sand; many fine prominent very pale brown (10YR 8/2) mottles; massive; very friable; few very fine and fine roots; 10 percent gravel; very strongly acid.

Range in Characteristics

Thickness of the solum: 20 to 40 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Content of rock fragments: 0 to 15 percent, except in the A and E horizons, which range from 0 to 35 percent
Reaction: Very strongly acid throughout

A horizon:
Color—hue of 10YR, value of 3 to 6, and chroma of 1 to 4

E horizon:
Color—hue of 10YR, value of 4 to 7, and chroma of 3 to 6
Texture—gravelly loam, loamy fine sand, fine sandy loam, sandy loam, or loam

Bt horizon:
Color—hue of 7.5YR or 10YR, value of 4 to 7, and chroma of 4 to 8
Texture—fine sandy loam, sandy clay loam, or clay loam

BC horizon (where present):
Color—hue of 7.5YR or 10YR, value of 5 to 7, and chroma of 6 or 8
Texture—sandy loam or sandy clay loam
Mottles—none to many in shades of brown, white, and gray

C horizon (where present):
Color—hue of 7.5YR or 10YR, value of 5 to 8, and chroma of 3 to 8
Texture—loamy sand, coarse sandy loam, sandy loam, fine sandy loam, or loam
Mottles—none to many in shades of brown, white, and red

Cr horizon (where present):
Type of bedrock—weathered gneiss, schist, or granite that crushes to sandy loam or loamy sand

Enders Series

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Ridges
Parent material: Residuum from interbedded shale and sandstone
Depth class: Deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Slow or very slow

Slope range: 2 to 15 percent
Classification: Fine, mixed, active, thermic Typic Hapludults

Geographically Associated Soils

- Albertville soils, which have B horizons with a hue of 7.5YR or yellower and have a moderately slow permeability
- Allen soils, which have less than 35 percent clay in the control section and have sandstone bedrock at a depth of more than 60 inches
- Conasauga soils, which are moderately well drained and have shale bedrock at a depth of 20 to 40 inches
- Cunningham soils, which have B horizons with a hue of 7.5YR or redder and have a slow permeability
- Dewey soils, which have limestone bedrock at a depth of more than 60 inches
- Hanceville soils, which have dark red colors throughout the upper part of the subsoil and have sandstone bedrock at a depth of more than 60 inches
- Montevallo soils, which have shale bedrock at a depth of 10 to 20 inches
- Panama soils, which have more than 35 percent sandstone fragments in the control section
- Townley soils, which have shale or interbedded sandstone and shale bedrock at a depth of 20 to 40 inches
- Waynesboro soils, which are on old stream terraces, have greater than 20 percent sand in the B horizons, and have bedrock at a depth of more than 60 inches

Typical Pedon

Enders silt loam, 6 to 15 percent slopes; 0.7 miles north of Murray-Gordon county line on U.S. Highway 411, about 0.2 mile southeast on Hiawassee Road, in road cut on south side of road; Murray County, Georgia; USGS topographic quadrangle, Oakman, GA (1971); lat. 34 degrees 36 minutes 27 seconds N. and long. 84 degrees 42 minutes 34 seconds W.

Ap—0 to 6 inches; dark grayish brown (10YR 4/2) silt loam; weak fine granular structure; very friable; many fine, medium, and coarse roots; 10 percent fine gravel; strongly acid; clear wavy boundary.

BA—6 to 10 inches; light yellowish brown (10YR 6/4) silt loam; few medium prominent strong yellowish red (5YR 4/6) mottles; weak medium granular structure and weak fine subangular blocky structure; very friable; many fine, medium, and coarse roots; very strongly acid; clear wavy boundary.

Bt1—10 to 19 inches; yellowish red (5YR 4/6) clay; strong medium subangular blocky structure; firm; common fine and medium and few coarse roots; common distinct clay films on faces of peds; extremely acid; gradual wavy boundary.

Bt2—19 to 27 inches; yellowish red (5YR 4/6) clay; common fine faint red (2.5YR 4/6) and few fine prominent very pale brown (10YR 7/4) mottles; strong coarse angular blocky structure and strong coarse subangular blocky structure; firm; common fine and medium roots; common distinct clay films on faces of peds; very strongly acid; gradual wavy boundary.

Bt3—27 to 43 inches; reddish brown (2.5YR 4/4) clay loam; few fine distinct red (2.5YR 5/6) and few fine prominent very pale brown (10YR 7/4) mottles; moderate medium subangular blocky structure; firm; common fine and medium roots; common distinct clay films on faces of peds; extremely acid; gradual wavy boundary.

Cr—43 to 60 inches; dusky red sandstone.

Range in Characteristics

Thickness of the solum: 35 to 60 inches
Depth to soft bedrock: 40 to 60 inches

Depth to hard bedrock: More than 60 inches
Content of rock fragments: 0 to 35 percent sandstone and shale, except in the BC and C horizons, which range from 5 to 60 percent sandstone and shale
Reaction: Strongly acid to extremely acid, except where lime has been applied

A or Ap horizon:
Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 2 to 6

BA or BE horizon (where present):
Color—hue of 5YR or 7.5YR, value of 4 to 6, and chroma of 4 to 8
Texture—gravelly sandy clay loam, fine sandy loam, silt loam, or silty clay loam
Mottles—none to few mottles in shades of red and brown

Bt horizon (upper part):
Color—hue of 2.5YR to 7.5YR, value of 4 or 5, and chroma of 4 to 8
Texture—gravelly silty clay loam, channery clay loam, silty clay loam, clay loam, or clay
Mottles—none to common in shades of red and yellow

Bt horizon (lower part):
Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 4 to 8
Texture—gravelly silty clay, channery clay, silty clay, clay loam, or clay
Mottles—few to common in shades of red, yellow, and brown

BC horizon (where present):
Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 3 to 8; or variegated in shades of yellow, brown, and gray
Texture—very channery silty clay loam, very channery silty clay, channery silty clay loam, channery silty clay, or silty clay loam
Mottles—common to many in shades of yellow, brown, and gray

C horizon (where present):
Color—variegated in shades of red, yellow, brown, and gray
Texture—highly weathered, rippable sandstone and shale that crushes to very channery silty clay loam or very channery silty clay

Cr horizon:
Type of bedrock—multicolored, rippable sandstone and shale bedded at angles up to 35 degrees

Fullerton Series

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Ridges
Parent material: Residuum from cherty limestone
Depth class: Very deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Slope range: 2 to 60 percent slopes
Classification: Fine, kaolinitic, thermic Typic Paleudults

Geographically Associated Soils

- Bodine soils, which have less than 35 percent clay in the control section and have more than 35 percent chert fragments throughout the profile
- Dewey and Waynesboro soils, which have less than 15 percent rock fragments in the control section

- Guthrie soils, which have less than 35 percent clay in the control section, are poorly drained, and are on flood plains, on flats, and in depressions
- Hanceville soils, which have less than 15 percent rock fragments in the control section and have sandstone bedrock at a depth of more than 60 inches
- Minvale and Shack soils, which have less than 35 percent clay in the control section
- Wax soils, which have less than 35 percent clay in the control section, are in drainageways, and are moderately well drained

Typical Pedon

Fullerton gravelly silt loam, 6 to 15 percent slopes; 0.2 mile southeast on Georgia Highway 225 from the intersection of Georgia Highway 225 and U.S. Highway 76, about 1.3 miles southeast on Tibbs Bridge Road, in road cut on southwest side of Tibbs Bridge Road; Murray County, Georgia; USGS topographic quadrangle, Calhoun NE, GA (1972); lat. 34 degrees 44 minutes 43 seconds N. and long. 84 degrees 44 minutes 42 seconds W.

Ap—0 to 3 inches; dark yellowish brown (10YR 4/4) gravelly silt loam; weak fine granular structure; very friable; common very fine and fine roots; 17 percent chert fragments; strongly acid; clear smooth boundary.

BE—3 to 6 inches; strong brown (7.5YR 4/6) gravelly silt loam; weak medium subangular blocky structure; friable; few very fine and fine roots; 17 percent chert fragments; strongly acid; clear smooth boundary.

Bt1—6 to 11 inches; yellowish red (5YR 5/6) gravelly silty clay; moderate medium subangular blocky structure; friable; few very fine and fine roots; few faint clay films on faces of peds; 15 percent chert fragments; very strongly acid; gradual wavy boundary.

Bt2—11 to 24 inches; red (2.5YR 4/6) gravelly silty clay; moderate medium subangular blocky structure; firm; few very fine and fine roots; common distinct clay films on faces of peds; 20 percent chert fragments; very strongly acid; gradual wavy boundary.

Bt3—24 to 60 inches; red (2.5YR 4/6) gravelly silty clay; few fine prominent strong brown (7.5YR 5/8) mottles; moderate medium subangular blocky structure; firm; few fine roots; many distinct clay films on faces of peds; 30 percent chert fragments; very strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Content of rock fragments: 15 to 35 percent chert fragments throughout
Reaction: Strongly acid or very strongly acid throughout, except where lime has been applied

A or Ap horizon:
Color—hue of 10YR, value of 3 or 4, and chroma of 2 to 4

E horizon (where present):
Color—hue of 10YR, value of 5 or 6, and chroma of 3 or 4
Texture—very gravelly loam, gravelly silt loam, or gravelly loam

BE horizon (where present):
Color—hue of 7.5YR, value of 4 or 5, and chroma of 6

Bt horizon:
Color—hue of 2.5YR or 5YR, value of 4 to 6, and chroma of 6 or 8
Texture—gravelly silty clay loam, gravelly silty clay, or gravelly clay
Mottles—none to common in shades of red, yellow, and brown

Guthrie Series

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Flood plains, flats, and depressions
Parent material: Silty alluvium from cherty limestone
Depth class: Very deep
Drainage class: Poorly drained
Seasonal high water table: Apparent; at a depth of 0.5 to 1.0 foot
Permeability: Slow
Slope range: 0 to 2 percent
Classification: Fine-silty, siliceous, semiactive, thermic Typic Fragiaquults

Geographically Associated Soils

- Bodine, Dewey, Fullerton, and Minvale soils, which are on the higher landscapes and are well drained
- Shack soils, which are on the higher landscapes and are moderately well drained
- Wax soils, which are moderately well drained

Typical Pedon

Guthrie silt loam, 0 to 2 percent slopes, occasionally flooded; 0.5 mile east of Catoosa-Whitfield county line on Georgia Highway 2, about 0.3 mile north on Lake Kathy Road, 0.7 mile northeast on Standing Road, 50 feet east of road in narrow drainageway; Whitfield County, Georgia; USGS topographic quadrangle, Ringgold, GA-TN (1946); lat. 34 degrees 55 minutes 00 seconds N. and long. 85 degrees 00 minutes 13 seconds W.

A—0 to 3 inches; dark grayish brown (10YR 4/2) silt loam; weak fine granular structure; very friable; many fine and medium and common coarse roots; strongly acid; gradual smooth boundary.

Eg—3 to 7 inches; dark grayish brown (10YR 5/2) silt loam; weak medium granular structure; very friable; many fine, common medium, and few coarse roots; common medium prominent yellowish brown (10YR 5/6) masses of oxidized iron; few medium faint light brownish gray (10YR 6/2) iron depletions; strongly acid; clear smooth boundary.

Btg1—7 to 18 inches; light gray (10YR 7/2) silty clay loam; weak fine subangular blocky structure; friable; many fine and common medium roots; common faint clay films on faces of peds; 5 percent small chert fragments; common medium prominent brownish yellow (10YR 6/8) masses of oxidized iron; strongly acid; gradual wavy boundary.

Btg2—18 to 25 inches; light gray (10YR 7/2) silty clay loam; weak medium subangular blocky structure; friable; few fine and common medium roots; common faint clay films on faces of peds; 10 percent small chert fragments; common medium prominent strong brown (7.5YR 5/8) and few medium distinct light yellowish brown (10YR 6/4) masses of oxidized iron; strongly acid; clear wavy boundary.

Btxg1—25 to 33 inches; light gray (10YR 7/2) very gravelly silty clay loam; weak medium and coarse prismatic structure; very firm; brittle; few roots; common faint clay films on faces of prisms; 45 percent small and medium chert fragments and manganese concretions; common medium prominent brownish yellow (10YR 6/8) and strong brown (7.5YR 5/8) masses of oxidized iron; strongly acid; gradual wavy boundary.

Btxg2—33 to 40 inches; light gray (10YR 7/2) very gravelly silty clay loam; weak medium and coarse prismatic structure; very firm; brittle; few fine roots; common faint clay films on faces of prisms; 55 percent small and medium chert fragments and manganese concretions; common medium prominent strong brown (7.5YR 5/8) masses of oxidized iron; strongly acid; gradual wavy boundary.

Btxg3—40 to 60 inches; light gray (10YR 7/1) very gravelly silty clay loam; moderate medium prismatic structure; firm; few fine roots; common faint clay films on faces of peds; 40 percent small and medium chert fragments and manganese concretions; common medium prominent strong brown (7.5YR 5/6) masses of oxidized iron; strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Content of rock fragments: 0 to 15 percent, except in the Btxg horizons, which range from 0 to 60 percent
Depth to layer with fragic properties: 20 to 40 inches
Reaction: Strongly acid or moderately acid throughout

A or Ap horizon:
Color—hue of 10YR, value of 3 to 5, and chroma of 2 or 3

Eg horizon:
Color—hue of 10YR, value of 5 or 6, and chroma of 2
Redoximorphic features—few to many in shades of brown and gray

Btg horizon:
Color—hue of 10YR or 2.5Y, value of 5 to 7, and chroma of 2 or less
Redoximorphic features—few to many in shades of yellow, brown, and gray

Btxg horizon:
Color—hue of 10YR or 2.5Y, value of 6 or 7, and chroma of 2 or less; or variegated in shades of red, yellow, brown, and gray
Texture—very gravelly silt loam, very gravelly silty clay loam, gravelly silty loam, or gravelly silty clay loam
Redoximorphic features—few to common in shades of red, yellow, brown, and gray

Hanceville Series

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Ridges
Parent material: Residuum from sandstone with thin strata of shale and siltstone
Depth class: Very deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Slope range: 2 to 30 percent
Classification: Fine, mixed, subactive, thermic Rhodic Paleudults

Geographically Associated Soils

- Dewey soils, which do not have dark red colors throughout the upper part of the subsoil and have limestone bedrock at a depth of more than 60 inches
- Enders soils, which do not have dark red colors throughout the upper part of the subsoil and have shale bedrock at a depth of 40 to 60 inches
- Fullerton soils, which do not have dark red colors throughout the upper part of the subsoil and have 15 to 35 percent chert fragments in the control section
- Waynesboro soils, which are on old stream terraces, do not have dark red colors throughout the upper part of the subsoil, and have more than 20 percent sand in the control section

Typical Pedon

Hanceville loam, 2 to 6 percent slopes; 1.8 miles south of Georgia-Tennessee state line on Georgia Highway 71, in road cut on the east side of Georgia Highway 71; Whitfield County, Georgia; USGS topographic quadrangle, Cohutta, GA-TN (1972); lat. 34 degrees 56 minutes 51 seconds N. and long. 84 degrees 56 minutes 00 seconds W.

Ap—0 to 3 inches; dark reddish brown (2.5YR 2.5/4) loam; weak fine granular structure; very friable; many very fine and fine and common medium roots; moderately acid; clear smooth boundary.

AB—3 to 10 inches; dark reddish brown (2.5YR 2.5/4) clay loam; moderate medium granular structure; very friable; common very fine, fine, and medium roots; strongly acid; clear smooth boundary.

Bt1—10 to 21 inches; dark reddish brown (2.5YR 3/4) clay loam; moderate medium subangular blocky structure; friable; common very fine, fine, and medium roots; few faint clay films on faces of peds; very strongly acid; gradual wavy boundary.

Bt2—21 to 60 inches; dark reddish brown (2.5YR 3/4) clay loam; moderate medium subangular blocky structure; friable; few very fine, fine, and medium roots; few faint clay films on faces of peds; very strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Content of rock fragments: 0 to 10 percent throughout
Reaction: Strongly acid or very strongly acid throughout, except where lime has been applied

Ap horizon:
Color—hue of 10R to 7.5YR, value of 2.5 or 3, and chroma of 3 or 4

AB horizon (where present):
Color—hue of 2.5YR to 7.5YR, value of 2.5 or 3, and chroma of 4
Texture—loam or clay loam

Bt horizon:
Color—hue of 10R or 2.5YR, value of 3 or 4, and chroma of 4 or 6
Texture—clay loam or clay
Mottles—none to common in shades of yellow and brown

Note: The Hanceville soils in this survey area are taxadjuncts to the series because they do not have a significant decrease in clay content from the maximum within 60 inches. This difference does not significantly affect the use and management of these soils.

Hector Series

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Ridges
Parent material: Residuum and colluvium from sandstone
Depth class: Shallow
Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderately rapid
Slope range: 5 to 60 percent
Classification: Loamy, siliceous, subactive, thermic Lithic Dystrudepts

Geographically Associated Soils

- Townley soils, which have more than 35 percent clay in the control section and have shale or interbedded shale and sandstone bedrock at a depth of 20 to 40 inches
- Nauvoo soils, which have sandstone or interbedded sandstone and shale bedrock at a depth of 40 to 60 inches
- Nella soils, which have 15 to 35 percent rock fragments throughout the profile and have sandstone bedrock at a depth of more than 60 inches
- Panama soils, which have more than 35 percent rock fragment in the control section and have bedrock at a depth of more than 60 inches

Typical Pedon

Hector very gravelly sandy loam, in an area of Hector-Townley-Rock outcrop complex, 5 to 35 percent slopes; 1.0 mile west-southwest from intersection of Interstate 75 and Walnut Street on Dug Gap Battle Road, in road cut on left side of road just past entrance to Battlefield Subdivision; Whitfield County, Georgia; USGS topographic quadrangle, Tunnel Hill, GA (1983); lat. 34 degrees 45 minutes 19 seconds N. and long. 85 degrees 00 minutes 27 seconds W.

A—0 to 4 inches; very dark grayish brown (10YR 3/2) very gravelly sandy loam; weak fine and medium granular structure; very friable; many very fine, fine, medium, and coarse roots; 40 percent sandstone fragments; strongly acid; clear wavy boundary.

BA—4 to 11 inches; brown (10YR 4/3) gravelly sandy loam; weak medium and fine subangular blocky structure; friable; many very fine, fine, medium, and coarse roots; 20 percent sandstone fragments; strongly acid; clear wavy boundary.

Bw—11 to 19 inches; dark yellowish brown (10YR 4/4) gravelly sandy loam; weak fine and medium subangular blocky structure; friable; 25 percent sandstone fragments; strongly acid; abrupt wavy boundary.

R—19 inches; hard sandstone bedrock.

Range in Characteristics

Thickness of the solum: 14 to 20 inches
Depth to soft bedrock: 14 to 20 inches
Depth to hard bedrock: 14 to 20 inches
Content of rock fragments: 0 to 40 percent, except in the Bw horizon, which ranges from 0 to 30 percent
Reaction: Strongly acid throughout

A horizon:
Color—hue of 10YR, value of 3 or 4, and chroma of 2 or 3

BA or E horizon (where present):
Color—hue of 10YR, value of 4 or 5, and chroma of 3
Texture—gravelly sandy loam, loamy sand, or sandy loam

Bw horizon:
Color—hue of 10YR, value of 4 or 5, and chroma of 3 to 6
Texture—gravelly sandy loam, loamy sand, sandy loam, or fine sandy loam

R horizon:
Type of bedrock—brownish or grayish hard sandstone bedded at angles up to 40 percent

Holston Series

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Stream terraces and ridges

Parent material: Loamy alluvium and colluvium from sedimentary rocks
Depth class: Very deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Slope range: 2 to 15 percent
Classification: Fine-loamy, siliceous, semiactive, thermic Typic Paleudults

Geographically Associated Soils

- Allen soils, which have B horizons with a hue of 5YR or redder
- Nauvoo soils, which have B horizons with a hue of 5YR or redder and have sandstone bedrock at a depth of 40 to 60 inches
- Nella soils, which have B horizons with a hue of 5YR or redder and have 15 to 35 percent rock fragments throughout the profile
- Sequatchie soils, which are on the slightly lower landscapes, have an umbric epipedon, and have a solum less than 60 inches thick

Typical Pedon

Holston fine sandy loam, 2 to 6 percent slopes; 0.4 mile north of Gordon-Whitfield county line on U.S. Highway 41, about 2.2 miles northeast on Nance Spring Road, 400 feet south on Tilton road, 1,000 feet east of road; Whitfield County, Georgia; USGS topographic quadrangle, Dalton South, GA (1972); lat. 34 degrees 38 minutes 42 seconds N. and long. 84 degrees 55 minutes 47 seconds W.

Ap—0 to 7 inches; dark yellowish brown (10YR 4/4) fine sandy loam; weak medium granular structure; friable; common very fine, fine, and medium roots; very strongly acid; clear smooth boundary.
Bt1—7 to 26 inches; yellowish brown (10YR 5/6) clay loam; weak medium subangular blocky structure; friable; few very fine, fine, and medium roots; very strongly acid; gradual wavy boundary.
Bt2—26 to 36 inches; strong brown (7.5YR 5/6) clay loam; moderate medium subangular blocky structure; friable; few very fine and fine roots; common medium faint yellowish brown (10YR 5/6) iron depletions; strongly acid; gradual wavy boundary.
Bt3—36 to 45 inches; strong brown (7.5YR 5/6) clay loam; few fine faint yellowish brown (10YR 5/6) and common medium prominent red (2.5YR 4/8) mottles; moderate medium subangular blocky structure; friable; few very fine and fine roots; strongly acid; gradual wavy boundary.
Bt4—45 to 60 inches; variegated red (2.5YR 4/8), strong brown (7.5YR 5/6), and yellowish brown (10YR 5/6) clay loam; moderate medium subangular blocky structure; friable; strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Content of rock fragments: 0 to 15 percent above 40 inches and 0 to 40 percent below 40 inches
Reaction: Very strongly acid or strongly acid throughout, except where lime has been applied

A or Ap horizon:
Color—hue of 10YR, value of 3 to 5, and chroma of 3 or 4

BE horizon (where present):
Color—hue of 10YR, value of 4 to 6, and chroma of 4 or 6
Texture—fine sandy loam or loam
Mottles—none to common in shades of red and brown

Bt horizon (upper part):
Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 4 to 8; or variegated in shades of red and brown
Texture—loam, sandy clay loam, silty clay loam, or clay loam
Mottles—none to many in shades of red and brown

Bt horizon (lower part):
Color—hue of 5YR to 10YR, value of 4 to 6, and chroma of 6 or 8; or variegated in shades of red, yellow, brown, and gray
Texture—sandy clay loam, silty clay loam, or clay loam
Mottles—few to many in shades of red, yellow, brown, and gray

Jefferson Series

Major land resource area: Southern Blue Ridge
Landform: Mountains
Parent material: Colluvium and residuum of metasandstone
Depth class: Very deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderately rapid
Slope range: 25 to 70 percent slopes
Classification: Fine-loamy, siliceous, semiactive, mesic Typic Hapludults

Geographically Associated Soils

- Lily soils, which have metasandstone bedrock at a depth of 20 to 40 inches
- Junaluska soils, which have phyllite and metasandstone bedrock at a depth of 20 to 40 inches
- Cataska and Tsali soils, which have phyllite and metasandstone bedrock at a depth of 10 to 20 inches

Typical Pedon

Jefferson gravelly sandy loam, 25 to 45 percent slopes; 2.75 miles south of Georgia-Tennessee state line on U.S. Highway 411, about 5.0 miles east on Old Georgia Highway 2, about 1.0 mile northwest on U.S. Forest Service road, in road bank on left side of road; Whitfield County, Georgia; USGS topographic quadrangle, Tennga, GA-TN (1968); lat. 34 degrees 57 minutes 44 seconds N. and long. 84 degrees 41 minutes 31 seconds W.

A—0 to 5 inches; very dark grayish brown (10YR 3/2) gravelly sandy loam; weak fine and medium granular structure; very friable; many very fine, fine, medium, and coarse roots; 30 percent metasandstone and quartzite rocks; strongly acid; clear wavy boundary.
E—5 to 10 inches; yellowish brown (10YR 5/4) sandy loam; weak fine subangular blocky structure; very friable; many very fine, fine, medium, and coarse roots; 10 percent metasandstone and quartzite fragments; strongly acid; gradual wavy boundary.
Bt1—10 to 32 inches; yellowish brown (10YR 5/4) gravelly sandy clay loam; weak fine and medium subangular blocky structure; friable; many very fine, fine, and medium

roots and common coarse roots; few faint clay films on faces of peds; 30 percent metasandstone fragments; strongly acid; gradual wavy boundary.

Bt2—32 to 40 inches; yellowish brown (10YR 5/6) very gravelly sandy clay loam; weak medium subangular blocky structure; friable; common very fine, fine, and medium and common coarse roots; common faint and few distinct clay films on faces of peds; 35 percent metasandstone and quartzite fragments; strongly acid; gradual wavy boundary.

BC—40 to 60 inches; yellowish brown (10YR 5/6) extremely gravelly sandy loam; weak medium subangular blocky structure; firm; few very fine, fine, and medium roots; 70 percent metasandstone and quartzite fragments; strongly acid.

Range in Characteristics

Thickness of the solum: 42 to more than 60 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Content of rock fragments: 5 to 35 percent above 40 inches and 20 to 80 percent below 40 inches
Reaction: Strongly acid throughout

A or Ap horizon:
Color—hue of 10YR, value of 3 to 5, and chroma of 2 or 3

E or BE horizon (where present):
Color—hue of 10YR, value of 4 or 5, and chroma of 3 or 4
Texture—gravelly fine sandy loam, sandy loam, or loam

Bt horizon:
Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 4 to 8
Texture—very gravelly sandy clay loam, gravelly sandy loam, gravelly sandy clay loam, sandy loam, loam, or clay loam
Mottles—none to common in shades brown and yellow

BC horizon:
Color—hue of 5YR to 10YR, value of 5, and chroma of 6
Texture—extremely gravelly sandy loam, very gravelly sandy loam, or gravelly sandy loam
Mottles—none to common in shades of red and brown

Junaluska Series

Major land resource area: Southern Blue Ridge
Landform: Mountains
Parent material: Residuum from phyllite and metasandstone
Depth class: Moderately deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Slope range: 5 to 70 percent slopes
Classification: Fine-loamy, mixed, subactive, mesic Typic Hapludults

Geographically Associated Soils

- Cataska and Tsali soils, which have phyllite and metasandstone bedrock at a depth of 10 to 20 inches
- Cheoah soils, which have an umbric epipedon, do not have argillic horizons, and have phyllite and metasandstone bedrock at a depth of 40 to 60 inches

- Edneytown, Jefferson, and Shelocta soils, which have bedrock at a depth of more than 60 inches
- Lily soils, which have lithic metasandstone bedrock at a depth of 20 to 40 inches
- Pigeonroost soils, which have B horizons with a hue of 7.5YR or yellower and have metamorphic or igneous bedrock at a depth of 20 to 40 inches

Typical Pedon

Junaluska loam, 5 to 25 percent slopes; 1.0 mile east on Georgia Highway 52 from the intersection with U.S. Highway 411 in Chatsworth, Georgia, 5.0 miles north on Holly Creek and Cool Springs Road, 2.9 miles east on dirt road, site is 200 feet south of road; Murray County, Georgia; USGS topographic quadrangle, Crandall, GA (1979); lat. 34 degrees 47 minutes 42 seconds N. and long. 84 degrees 42 minutes 02 seconds W.

Ap—0 to 5 inches; brown (7.5YR 4/4) loam; weak fine granular structure; very friable; many very fine, fine, medium, and coarse roots; few fine flakes of mica; 14 percent channers of phyllite; very strongly acid; gradual wavy boundary.

Bt1—5 to 16 inches; strong brown (7.5YR 4/6) channery silty clay loam; weak fine and medium subangular blocky structure; friable; many very fine and fine and few medium and coarse roots; few fine flakes of mica; 25 percent channers of phyllite; very strongly acid; gradual wavy boundary.

Bt2—16 to 29 inches; yellowish red (5YR 5/8) channery silty clay loam; weak medium subangular blocky structure; friable; few fine flakes of mica; 20 percent channers of phyllite; very strongly acid; clear wavy boundary.

Cr—29 to 60 inches; multicolored fractured phyllite and metasandstone bedrock bedded at angles up to 30 degrees.

Range in Characteristics

Thickness of the solum: 0 to 39 inches
Depth to soft bedrock: 20 to 40 inches
Depth to hard bedrock: More than 40 inches
Content of rock fragments: 10 to 35 percent throughout
Reaction: Very strongly acid throughout

A horizon:
Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 3 to 6

Bt horizon:
Color—hue of 2.5YR to 7.5YR, value of 4 or 5, and chroma of 4 to 8
Texture—channery sandy clay loam, channery silty clay loam, silty clay loam, or clay loam

Cr horizon:
Type of bedrock—multicolored, fractured phyllite and metasandstone bedded at angles ranging from 10 to 90 degrees

Ketona Series

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Flood plains, flats, and depressions
Parent material: Alluvium and residuum from limestone
Depth class: Very deep
Drainage class: Poorly drained
Seasonal high water table: Apparent; at a depth of 0.5 to 1.0 foot
Permeability: Slow

Slope range: 0 to 2 percent
Classification: Fine, mixed, superactive, thermic Chromic Vertic Epiaqualfs

Geographically Associated Soils

- Arkabutla and Chenneby soils, which have less than 35 percent clay in the control section and are somewhat poorly drained
- Capshaw soils, which are moderately well drained
- Docena soils, which have less than 35 percent clay in the control section and are moderately well drained
- Sequatchie and Shellbluff soils, which have less than 35 percent clay in the control section and are well drained

Typical Pedon

Ketona silt loam, 0 to 2 percent slopes, occasionally flooded; 2.1 miles south from Georgia-Tennessee state line on Georgia Highway 71, about 0.9 mile north on Old Dalton Cleveland Highway, 1.7 miles east on Hopewell Road, 0.7 mile northeast on Hopewell Loop Road, 1,200 feet east of Hopewell Loop Road in Coahulla Creek flood plain; Whitfield County, Georgia; USGS topographic quadrangle, Cohutta, GA-TN (1972); lat. 34 degrees 58 minutes 48 seconds N. and long. 84 degrees 53 minutes 27 seconds W.

Ap—0 to 7 inches; brown (10YR 4/3) silt loam; weak medium granular structure; very friable; many very fine, fine, and medium roots; neutral; clear wavy boundary.

Btg1—7 to 22 inches; grayish brown (2.5Y 5/2) silty clay; strong medium subangular blocky structure; firm; many very fine and fine and common medium roots; common faint and few distinct clay films on faces of peds; few black concretions; many medium prominent dark yellowish brown (10YR 4/6) masses of oxidized iron; slightly acid; gradual wavy boundary.

Btg2—22 to 64 inches; gray (10YR 6/1) silty clay; strong medium subangular blocky structure; firm; common very fine and fine and few medium roots; common distinct clay films on faces of peds; few black concretions; common medium prominent yellowish brown (10YR 5/8) masses of oxidized iron; common medium faint light gray (10YR 7/2) iron depletions; slightly alkaline.

Range in Characteristics

Thickness of the solum: More than 60 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Content of rock fragments: 0 to 5 percent in the A horizon and 5 to 20 percent small black concretions, calcium carbonate concretions, or gravel in Btg horizons
Reaction: Slightly acid to moderately alkaline throughout

A or Ap horizon:
Color—hue of 10YR, value of 3 or 4, and chroma of 2 or 3

BA horizon (where present):
Color—hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 2 or less
Texture—silty clay loam or silty clay
Redoximorphic features—none to many in shades of yellow, brown, and gray

Btg horizon:
Color—hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 2 or less; or variegated in shades of yellow, brown, and gray
Texture—silty clay or clay
Redoximorphic features—few to many in shades of yellow, brown, and gray

Note: The Ketona soils in this survey area are taxadjuncts to the series because they have a color value that ranges to 4 in the A horizon. This difference does not significantly affect the use and management of these soils.

Lily Series

Major land resource area: Southern Blue Ridge
Landform: Mountains
Parent material: Residuum from metasandstone
Depth class: Moderately deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderately rapid
Slope range: 5 to 25 percent
Classification: Fine-loamy, siliceous, semiactive, mesic Typic Hapludults

Geographically Associated Soils

- Cataska and Tsali soils, which have phyllite and metasandstone bedrock at a depth of 10 to 20 inches
- Cheoah soils, which have an umbric epipedon, do not have argillic horizons, and have phyllite and metasandstone bedrock at a depth of 40 to 60 inches
- Edneytown soils, which have metamorphic or igneous bedrock at a depth of more than 60 inches
- Jefferson soils, which have metasandstone bedrock at a depth of more than 60 inches
- Junaluska soils, which have B horizons with a hue of 7.5YR or redder and have paralithic phyllite and metasandstone bedrock at a depth of 20 to 40 inches

Typical Pedon

Lily fine sandy loam, 5 to 25 percent slopes, rubbly; 2.2 miles northeast on Fort Mountain State Park Road from junction of Georgia Highway 52 and Fort Mountain State Park entrance, 150 feet north from Fort Mountain State Park Road parking area; Murray County, GA; USGS topographic quadrangle, Crandall, GA (1979); lat. 34 degrees 46 minutes 48 seconds N. and long. 84 degrees 42 minutes 30 seconds W.

Ap—0 to 5 inches; dark grayish brown (10YR 4/2) fine sandy loam; weak fine granular structure; very friable; many very fine, fine, medium, and coarse roots; strongly acid; clear smooth boundary.

BA—5 to 10 inches; yellowish brown (10YR 5/4) sandy loam; weak fine subangular blocky structure; friable; many very fine and fine and common medium and coarse roots; strongly acid; gradual wavy boundary.

Bt1—10 to 14 inches; yellowish brown (10YR 5/6) sandy clay loam; weak fine subangular blocky structure; friable; many very fine and fine and few coarse roots; few faint clay films on faces of peds; few pockets of highly weathered metasandstone rock; strongly acid; clear wavy boundary.

Bt2—14 to 32 inches; strong brown (7.5YR 5/6) sandy clay loam; few fine prominent pale brown (10YR 6/3) and few medium prominent yellowish red (5YR 5/8) mottles; weak medium subangular blocky structure; friable; common very fine and fine and few coarse roots; few faint clay films on faces of peds; pockets of highly weathered metasandstone rock; very strongly acid; clear wavy boundary.

C—32 to 39 inches; variegated light yellowish brown (10YR 6/4), yellowish red (5YR 5/8), strong brown (7.5YR 5/6), and very pale brown (10YR 8/3) loamy sand with pockets of sandy loam; loose; very friable; some fragments of decomposing metasandstone; very strongly acid; abrupt wavy boundary.

R—39 inches; hard metasandstone bedrock.

Range in Characteristics

Thickness of the solum: 20 to 40 inches
Depth to soft bedrock: 20 to 40 inches
Depth to hard bedrock: 20 to 40 inches
Content of rock fragments: 0 to 35 percent, except in the A, BA, or BE horizons, which range from 0 to 30 percent
Reaction: Strongly acid or very strongly acid throughout

A or Ap horizon:
Color—hue of 10YR, value of 3 or 4, and chroma of 2 to 4

BE or BA horizon:
Color—hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 4 or 6
Texture—gravelly sandy loam, gravelly loam, or sandy loam

Bt horizon:
Color—hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 6 or 8
Texture—very gravelly sandy clay loam, gravelly sandy clay loam, or sandy clay loam
Mottles—none to common in shades of red and brown

BC or C horizon (where present):
Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 6 or 8; or variegated in shades of red and brown
Texture—loamy coarse sand, loamy sand, coarse sandy loam, or sandy loam
Mottles—none to common in shades of red and brown

R horizon:
Type of bedrock—hard metasandstone rock

Minvale Series

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Ridges
Parent material: Residuum from cherty limestone
Depth class: Very deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Slope range: 2 to 30 percent
Classification: Fine-loamy, siliceous, subactive, thermic Typic Paleudults

Geographically Associated Soils

- Bodine soils, which are excessively drained and have more than 35 percent chert fragments throughout the profile
- Dewey soils, which have more than 35 percent clay and less than 15 percent chert fragments in the control section
- Fullerton soils, which have more than 35 percent clay in the control section
- Guthrie soils, which are on flood plains, on flats, and in depressions and are poorly drained
- Shack soils, which are moderately well drained and have fragic properties
- Wax soils, which are moderately well drained, have fragic properties, and are in drainageways

Typical Pedon

Minvale gravelly silt loam, in an area of Shack-Minvale-Bodine complex, 6 to 15 percent slopes; 2.2 miles south of Georgia-Tennessee state line on Georgia Highway 71, about 5.8 miles west on Cohutta Road, 1.7 miles north on Fraziers Chapel Road, 0.7 mile west on Ledford Road from intersection of Fraziers Chapel Road and Ledford Road, in road cut on south side of Ledford Road; Whitfield County, Georgia; USGS topographic quadrangle, Beaverdale, GA-TN (1972); lat. 34 degrees 59 minutes 02 seconds N. and long. 84 degrees 51 minutes 50 seconds W.

Ap—0 to 5 inches; dark grayish brown (10YR 4/2) gravelly silt loam; weak fine granular structure; very friable; common very fine and fine roots; 20 percent chert fragments; moderately acid; clear smooth boundary.

BA—5 to 12 inches; yellowish brown (10YR 5/4) gravelly silty clay loam; weak fine subangular blocky structure; friable; common fine and medium roots; 20 percent chert fragments; very strongly acid; gradual wavy boundary.

Bt1—12 to 40 inches; yellowish brown (10YR 5/4) gravelly silty clay loam; common medium faint pale brown (10YR 6/3) mottles; moderate medium subangular blocky structure; friable; few fine and medium roots; common faint clay films on faces of peds; 30 percent chert fragments; very strongly acid; gradual wavy boundary.

Bt2—40 to 60 inches; yellowish brown (10YR 5/6) gravelly silty clay; common medium distinct yellowish red (5YR 4/6) mottles; moderate medium subangular blocky structure; firm; common distinct clay films on faces of peds; 30 percent chert fragments; strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Content of rock fragments: 15 to 35 percent chert fragments throughout
Reaction: Strongly acid or very strongly acid throughout, except where lime has been applied

A or Ap horizon:
Color—hue of 10YR, value of 4 or 5, and chroma of 2 or 3

BA or BE horizon (where present):
Color—hue of 10YR, value of 5 or 6, and chroma of 2 to 4
Texture—gravelly silt loam, gravelly loam, or gravelly silty clay loam

Bt horizon (upper part):
Color—hue of 5YR to 10YR, value of 4 or 5, and chroma of 4 to 8; or variegated in shades of red, yellow, and brown
Texture—gravelly silty clay loam or gravelly clay loam
Mottles—none to many in shades of red, yellow, and brown

Bt horizon (lower part):
Color—hue of 2.5YR to 10YR, value of 4 or 5, and chroma of 6 or 8; or variegated in shades of red, yellow, brown, and gray
Texture—gravelly silty clay loam, gravelly clay loam, or gravelly silty clay
Mottles—few to many in shades of red, yellow, brown, and gray

Montevallo Series

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Ridges
Parent material: Residuum from shale

Depth class: Shallow
Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Slope range: 6 to 60 percent slopes
Classification: Loamy-skeletal, mixed, subactive, thermic, shallow Typic Dystrudepts

Geographically Associated Soils

- Albertville, Cunningham, and Enders soils, which have more than 35 percent clay in the control section and have shale bedrock at a depth of 40 to 60 inches
- Conasauga soils, which have more than 35 percent clay in the control section, are moderately well drained, and have shale bedrock at a depth of 20 to 40 inches
- Townley soils, which have more than 35 percent clay in the control section and have shale or interbedded sandstone and shale bedrock at a depth of 20 to 40 inches

Typical Pedon

Montevallo very channery loam, 30 to 60 percent slopes; 1.5 miles north of the Coosawattee River on U.S. Highway 411, about 0.6 mile northwest on county dirt road, 500 feet north of dirt road on timber harvest road, in road cut on north side of road; Murray County, Georgia; USGS topographic quadrangle, Ramhurst, GA (1979); lat. 34 degrees 38 minutes 40 seconds N. and long. 84 degrees 43 minutes 28 seconds W.

A—0 to 5 inches; dark yellowish brown (10YR 4/4) very channery loam; weak fine granular structure; very friable; common fine and medium roots; 35 percent shale channers; strongly acid; clear wavy boundary.
Bw—5 to 10 inches; yellowish brown (10YR 5/6) very channery loam; weak fine subangular blocky structure; friable; few fine and medium roots; 50 percent shale channers; very strongly acid; clear irregular boundary.
Cr—10 to 60 inches; multicolored, rippable shale bedrock.

Range in Characteristics

Thickness of the solum: 10 to 20 inches
Depth to soft bedrock: 10 to 20 inches
Depth to hard bedrock: More than 60 inches
Content of rock fragments: 15 to 40 percent shale fragments in the A or Ap horizon and 40 to 70 percent shale fragments in the Bw horizon
Reaction: Strongly acid or very strongly acid throughout

A or Ap horizon:
Color—hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 3 or 4

Bw horizon
Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 4 or 6
Texture—very channery loam, very channery clay loam, extremely channery loam, or extremely channery silty clay loam

Cr horizon:
Type of bedrock—multicolored, rippable shale

Nauvoo Series

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Ridges
Parent material: Residuum from sandstone or interbedded sandstone and shale
Slope range: 6 to 35 percent
Depth class: Deep

Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Classification: Fine-loamy, siliceous, semiactive, thermic Typic Hapludults

Geographically Associated Soils

- Allen soils, which have sandstone bedrock at a depth of more than 60 inches
- Hector soils, which have sandstone bedrock at a depth of 10 to 20 inches
- Holston soils, which have B horizons with a hue of 7.5YR or yellower and have bedrock at a depth of more than 60 inches
- Nella soils, which have 15 to 35 percent rock fragments throughout the profile and have bedrock at a depth of more than 60 inches
- Panama soils, which have more than 35 percent rock fragments in the control section and have bedrock at a depth of more than 60 inches
- Sipsey soils, which have B horizons in hues of 7.5YR or yellower and have sandstone and interbedded sandstone and shale bedrock at a depth of 20 to 40 inches

Typical Pedon

Nauvoo fine sandy loam, 6 to 15 percent slopes; 8.3 miles south of the Georgia-Tennessee state line on U.S. Highway 411, about 0.4 mile west on Hawkins Branch Road, approximately 30 feet north of road; Murray County, Georgia; USGS topographic quadrangle, Chatsworth, GA (1972); lat. 34 degrees 52 minutes 14 seconds N. and long. 84 degrees 45 minutes 37 seconds W.

Ap—0 to 5 inches; brown (10YR 4/3) fine sandy loam; weak fine granular structure; very friable; many very fine, fine, medium, and coarse roots; 5 percent sandstone fragments; very strongly acid; clear wavy boundary.

BE—5 to 12 inches; yellowish brown (10YR 5/6) fine sandy loam; weak fine granular structure; very friable; many very fine, fine, medium, and coarse roots; 5 percent sandstone fragments; very strongly acid; clear wavy boundary.

Bt—12 to 29 inches; yellowish red (5YR 5/8) clay loam; common medium distinct brownish yellow (10YR 6/8) mottles; moderate medium subangular blocky structure; friable; many very fine and fine and few medium roots; common faint clay films on faces of peds; very strongly acid; gradual wavy boundary

BC—29 to 56 inches; yellowish red (5YR 5/8) sandy clay loam with pockets of loamy sand; common medium faint red (2.5YR 4/8) and common medium distinct brownish yellow (10YR 6/8) mottles; moderate medium subangular blocky structure; friable; common faint clay films on faces of peds; very strongly acid; clear abrupt boundary.

Cr—56 to 60 inches; brownish yellow rippable sandstone bedrock.

Range in Characteristics

Thickness of the solum: 40 to 60 inches
Depth to soft bedrock: 40 to 60 inches
Depth to hard bedrock: More than 60 inches
Content of rock fragments: 0 to 15 percent, except in the BC and C horizons, which range from 0 to 30 percent
Reaction: Very strongly acid throughout, except where lime has been applied

A horizon:
Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 2 or 3

BE horizon:
Color—hue 10YR, value of 4 or 5, and chroma of 4 or 6

Bt horizon:

Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 6 or 8
Texture—loam, sandy clay loam, or clay loam
Mottles—none to common in shades of red and yellow

BC horizon:

Color—hue of 2.5YR or 5YR, value of 3 to 5, and chroma of 6 or 8; or variegated in shades of red and yellow
Texture—very channery fine sandy loam, sandy loam, sandy clay loam, or clay loam
Mottles—none to common in shades of red and yellow

C horizon (where present):

Color—hue of 5YR to 10YR, value of 4 to 6, and chroma of 3 to 6
Texture—sandy loam or loam
Mottles—common to many in shades of red, brown, yellow, and gray

Cr horizon:

Type of bedrock—brown, yellow, or red rippable sandstone

Nella Series

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Ridges
Parent material: Alluvium, colluvium, and residuum from sandstone and shale
Depth class: Very deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Slope range: 2 to 60 percent slopes
Classification: Fine-loamy, siliceous, semiactive, thermic Typic Paleudults

Geographically Associated Soils

- Allen soils, which have less than 15 percent rock fragments in the control section
- Hector soils, which have sandstone bedrock at a depth of 10 to 20 inches
- Holston soils, which have B horizons with a hue of 7.5YR or yellower and have less than 15 percent rock fragments in the control section
- Nauvoo soils, which have less than 15 percent rock fragments in the control section and have sandstone bedrock at a depth of 40 to 60 inches
- Panama soils, which have more than 35 percent rock fragments in the control section
- Townley soils, which have more than 35 percent clay in the control section and have shale or interbedded sandstone and shale bedrock at a depth of 20 to 40 inches

Typical Pedon

Nella gravelly fine sandy loam, 15 to 30 percent slopes; 0.3 mile west of intersection of Highway 76 and Willowdale Road NW, 0.9 mile north on Crow Valley Road NW, 0.3 mile west on dirt road up Rocky Face Ridge; Whitfield County, Georgia; USGS topographic quadrangle, Tunnel Hill, GA (1972); lat. 34 degrees 48 minutes 45 seconds N. and long. 85 degrees 00 minutes 24 seconds W.

Ap—0 to 5 inches; brown (10YR 4/3) gravelly fine sandy loam; weak fine granular structure; very friable; many very fine, fine, medium, and coarse roots; 15 percent sandstone fragments; strongly acid; clear wavy boundary.

E—5 to 10 inches; yellowish brown (10YR 5/4) gravelly fine sandy loam; weak medium granular structure; very friable; many very fine, fine, medium, and coarse roots; 15 percent sandstone fragments; very strongly acid; clear wavy boundary.

BE—10 to 13 inches; brown (7.5YR 5/4) gravelly sandy loam; weak medium granular structure and weak fine subangular blocky structure; very friable; many very fine and fine and common medium and coarse roots; 20 percent sandstone fragments; strongly acid; clear wavy boundary.

Bt1—13 to 38 inches; yellowish red (5YR 4/6) gravelly clay loam; weak fine and medium subangular blocky structure; friable; common very fine and fine and few medium and coarse roots; common faint clay films on faces of peds; 25 percent sandstone fragments; very strongly acid; gradual wavy boundary.

Bt2—38 to 48 inches; red (2.5YR 4/6) very gravelly sandy clay loam; few medium prominent reddish yellow (7.5YR 6/6) mottles; weak medium subangular blocky structure; friable; common very fine and fine roots; few distinct and common faint clay films on faces of peds; 35 percent sandstone fragments; very strongly acid; clear wavy boundary.

Bt3—48 to 58 inches; red (2.5YR 4/6) gravelly sandy clay loam; common fine prominent reddish yellow (7.5YR 6/6) and (7.5YR 6/8) mottles; weak medium and coarse subangular blocky structure; friable; few very fine and fine roots; common faint, few distinct, and few prominent clay films on faces of peds; 20 percent sandstone fragments; very strongly acid.

Bt4—58 to 65 inches; red (2.5YR 4/6) gravelly clay loam; common medium prominent light yellowish brown (10YR 6/4) and few fine prominent reddish brown (7.5YR 6/8) mottles; moderate medium subangular blocky structure; firm; few very fine and fine roots; few prominent and common distinct clay films on faces of peds; 15 percent sandstone fragments; strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Content of rock fragments: 15 to 35 percent throughout
Reaction: Strongly acid or very strongly acid throughout

A or Ap horizon:
Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 2 to 4

E or BE horizon (where present):
Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 4 or 6
Texture—gravelly sandy loam, gravelly fine sandy loam, sandy loam, or fine sandy loam

Bt horizon (upper part):
Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 6 or 8
Texture—gravelly loam, gravelly sandy clay loam, gravelly clay loam, loam, clay loam, or sandy clay loam
Mottles—none to common in shades of red, yellow, and brown

Bt horizon (lower part):
Color—hue of 2.5YR to 10YR, value of 4 or 5, and chroma of 6 or 8; or variegated in shades of red and brown
Texture—very gravelly sandy clay loam, gravelly sandy clay loam, gravelly clay loam, sandy clay loam, clay loam, or clay
Mottles—none to common in shades of red and brown

Panama Series

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Ridges
Parent material: Colluvium from sandstone over residuum from shale
Depth class: Very deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderately slow
Slope range: 15 to 60 percent
Classification: Loamy-skeletal, siliceous, active, thermic Typic Paleudults

Geographically Associated Soils

- Allen soils, which have less than 15 percent rock fragments in the control section
- Enders soils, which have more than 35 percent clay in the control section and have shale bedrock at a depth of 40 to 60 inches
- Hector soils, which have sandstone bedrock at a depth of 10 to 20 inches
- Nella soils, which have 15 to 35 percent rock fragments throughout the profile
- Nauvoo soils, which have less than 15 percent rock fragments in the control section and have sandstone or interbedded sandstone and shale bedrock at a depth of 40 to 60 inches
- Townley soils, which have more than 35 percent clay in the control section and have shale or interbedded sandstone and shale bedrock at a depth of 20 to 40 inches

Typical Pedon

Panama very gravelly fine sandy loam, 30 to 60 percent slopes; 3.7 miles southwest of Interstate 75 on Dug Gap Mountain Road, 1.4 miles south on Hurricane Road, approximately 100 feet south on South Hurricane Road, in road cut on left side of road; Whitfield County, Georgia; USGS topographic quadrangle, Villanow, GA (1993); lat. 34 degrees 44 minutes 54 seconds N. and long. 85 degrees 01 minute 54 seconds W.

A—0 to 5 inches; dark yellowish brown (10YR 4/4) very gravelly fine sandy loam; weak fine granular structure; very friable; many very fine, fine, medium, and coarse roots; 40 percent sandstone fragments; slightly acid; clear wavy boundary.

E—5 to 13 inches; brown (7.5YR 5/4) gravelly fine sandy loam; weak fine and medium granular structure; friable; many very fine, fine, medium, and coarse roots; 20 percent sandstone fragments; slightly acid; clear wavy boundary.

BE—13 to 29 inches; reddish brown (5YR 5/4) extremely gravelly fine sandy loam; weak medium granular structure and weak fine subangular blocky structure; friable; many very fine, fine, medium, and coarse roots; 60 percent sandstone fragments; slightly acid; clear wavy boundary.

Bt—29 to 55 inches; reddish brown (5YR 5/4) very gravelly sandy clay loam; weak medium subangular blocky structure; friable; common very fine and fine and few medium and coarse roots; few faint clay films on faces of peds; 40 percent sandstone fragments; very strongly acid; clear wavy boundary.

2Bt—55 to 80 inches; reddish brown (5YR 5/4) channery silty clay loam; common medium prominent red (2.5YR 4/8) mottles; weak medium subangular blocky structure; firm; common very fine and fine and few medium and coarse roots; common distinct clay films on faces of peds; 25 percent shale and sandstone fragments; very strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches
Depth to soft bedrock: More than 60 inches

Depth to hard bedrock: More than 60 inches
Content of rock fragments: 10 to 60 percent in the A, AB, BE, and E horizons; 35 to 50 percent in the Bt horizon; and 20 to 50 percent in the 2Bt horizon
Reaction: Slightly acid to very strongly acid throughout

A horizon:
Color—hue of 5YR to 10YR, value of 3 or 4, and chroma of 2 to 4

E horizon:
Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 3 or 4
Texture—extremely gravelly fine sandy loam, very gravelly fine sandy loam, gravelly fine sandy loam, sandy loam, or gravelly loam

BE or AB horizon:
Color—hue of 5YR to 10YR, value of 4 to 6, and chroma of 3 or 4
Texture—extremely gravelly fine sandy loam, very gravelly fine sandy loam, gravelly fine sandy loam, sandy loam, gravelly loam, or loam

Bt horizon:
Color—hue of 2.5YR to 7.5YR, value of 4 or 5, and chroma of 4 or 6
Texture—very gravelly sandy clay loam

2Bt horizon:
Color—hue of 2.5YR to 7.5YR, value of 3 to 5, and chroma of 4 to 8
Texture—very gravelly silty clay loam, channery silty clay loam, or silty clay loam
Mottles—none to common in shades of red and brown

Pigeonroost Series

Major land resource area: Southern Blue Ridge
Landform: Mountains
Parent material: Residuum from high-grade metamorphic or igneous rocks
Depth class: Moderately deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Slope range: 5 to 15 percent
Classification: Fine-loamy, mixed, active, mesic Typic Hapludults

Geographically Associated Soils

- Cheoah soils, which have umbric epipedons, do not have argillic horizons, and have phyllite and metasandstone bedrock at a depth of 40 to 60 inches
- Edneytown soils, which have bedrock at a depth of more than 60 inches
- Junaluska soils, which have B horizons of 7.5YR or redder and have phyllite and metasandstone bedrock at a depth of 20 to 40 inches
- Cataska soils, which are loamy-skeletal and are shallow to bedrock
- Edgemont soils, which are derived from metasandstone and quartzite
- Tsali soils, which have phyllite and metasandstone bedrock at a depth of 10 to 20 inches

Typical Pedon

Pigeonroost loam, in an area of Pigeonroost-Cheoah complex, 5 to 15 percent slopes; 4.1 miles south on Mountain Road from intersection of Georgia Highway 52 and Mountain Road, 4.0 miles east on Peoples Lake Road, 0.3 mile northeast on secondary Forest Service road, 100 feet east of road; Murray County, Georgia; USGS

topographic quadrangle, Ramhurst, GA (1979); lat. 34 degrees 44 minutes 52 seconds N. and long. 84 degrees 40 minutes 15 seconds W.

A—0 to 6 inches; dark brown (10YR 3/3) loam; weak fine granular structure; very friable; many very fine, fine, medium, and coarse roots; 5 percent gravel; strongly acid; clear wavy boundary.

BA—6 to 12 inches; dark yellowish brown (10YR 4/4) fine sandy loam; weak medium granular structure and weak fine subangular blocky structure; very friable; many very fine, fine, medium, and coarse roots; 10 percent gravel; very strongly acid; gradual wavy boundary.

Bt1—12 to 24 inches; dark yellowish brown (10YR 4/4) gravelly sandy clay loam; weak fine subangular blocky structure; very friable; common very fine, fine, medium, and coarse roots; few faint clay films on faces of peds; 15 percent gravel; very strongly acid; clear wavy boundary.

Bt2—24 to 34 inches; dark yellowish brown (10YR 4/6) gravelly sandy clay loam; weak medium subangular blocky structure; friable; common faint clay films on faces of peds; 25 percent phyllite or sandstone channers; very strongly acid; abrupt wavy boundary.

Cr—34 to 44 inches; metamorphic, rippable bedrock.

Range in Characteristics

Thickness of the solum: 15 to 40 inches
Depth to soft bedrock: 20 to 40 inches
Depth to hard bedrock: More than 40 inches
Content of rock fragments: 0 to 50 percent, except in the A, BA, and BE horizons, which range from 0 to 35 percent
Reaction: Strongly acid or very strongly acid throughout

A or Ap horizon:
Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 2 to 4

BA or BE horizon (where present):
Color—hue of 10YR, value of 6, and chroma of 4 or 6
Texture—fine sandy loam, sandy loam, or loam

Bt horizon:
Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 4 to 8
Texture—channery silty clay loam, channery clay loam, gravelly sandy clay loam, or clay loam

BC horizon (where present):
Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 4 or 6
Texture—channery silty clay loam, gravelly silty clay loam, or silty clay loam

C horizon (where present):
Color—hue of 10YR, value of 5 to 7, and chroma of 3 to 6
Texture—very channery loam, very gravelly loam, channery loam, or gravelly silt loam

Cr horizon:
Type of bedrock—rippable, metamorphic rock

Sequatchie Series

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Stream terraces
Parent material: Alluvium from sedimentary rocks

Depth class: Very deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Slope range: 0 to 6 percent
Classification: Fine-loamy, siliceous, semiactive, thermic Humic Hapludults

Geographically Associated Soils

- Docena soils, which do not have an umbric epipedon, are fine-silty, and are moderately well drained
- Holston soils, which do not have an umbric epipedon, have a solum more than 60 inches thick, and are on the higher terraces
- Ketona soils, which have more than 35 percent clay in the control section and are poorly drained
- Shellbluff soils, which do not have an umbric epipedon, are fine-silty, and are on flood plains
- Waynesboro soils, which do not have an umbric epipedon, have more than 35 percent clay in the control section, have B horizons with a hue of 5YR or redder, and have a solum more than 60 inches thick
- Whitwell soils, which do not have an umbric epipedon and are moderately well drained

Typical Pedon

Sequatchie loam, 0 to 2 percent slopes, occasionally flooded; 0.8 mile east on Loughridge Road from intersection of U.S. Highway 411 and Loughridge Road, site is 25 feet south of Loughridge Road; Murray County, Georgia; USGS topographic quadrangle, Crandall, GA (1971); lat. 34 degrees 50 minutes 55 seconds N. and long. 84 degrees 44 minutes 30 seconds W.

Ap—0 to 9 inches; dark brown (7.5YR 3/4) loam; weak fine granular structure; very friable; many very fine, common fine, and few medium roots; strongly acid; clear smooth boundary.

BA—9 to 15 inches; dark yellowish brown (10YR 4/4) loam; common medium distinct yellowish brown (10YR 5/6) mottles; weak medium subangular blocky structure; friable; few very fine, common fine, and few medium roots; 2 percent gravel; strongly acid; clear smooth boundary.

Bt1—15 to 26 inches; yellowish brown (10YR 5/8) clay loam; weak medium subangular blocky structure; friable; common fine and few medium roots; few soft manganese concretions; few faint clay films on faces of peds; very strongly acid; gradual wavy boundary.

Bt2—26 to 34 inches; yellowish brown (10YR 5/6) clay loam; moderate coarse subangular blocky structure; firm; few fine roots; common faint and few prominent clay films on faces of peds; common medium prominent red (2.5YR 4/8) masses of oxidized iron; few fine distinct light yellowish brown (10YR 6/4) iron depletions; few soft manganese concretions; very strongly acid; gradual wavy boundary.

Bt3—34 to 43 inches; strong brown (7.5YR 4/6) clay loam; moderate coarse subangular blocky structure; firm; few fine roots; common faint and few distinct clay films on faces of peds; common medium distinct brownish yellow (10YR 6/8) masses of oxidized iron; few medium distinct light yellowish brown (10YR 6/4) iron depletions; many soft manganese concretions; very strongly acid; gradual wavy boundary.

Bt4—43 to 55 inches; variegated red (2.5YR 4/8), strong brown (7.5YR 4/6), brownish yellow (10YR 6/8), and light yellowish brown (10YR 6/4) clay loam; moderate

medium subangular blocky structure; firm; common faint and few distinct clay films on faces of peds; many soft manganese concretions; very strongly acid; gradual wavy boundary.

BC—55 to 60 inches; variegated strong brown (7.5YR 4/6), very pale brown (10YR 7/4), and light gray (10YR 7/2) sandy clay loam with pockets of coarse sandy material; weak medium subangular blocky structure; friable; few soft manganese concretions; very strongly acid.

Range in Characteristics

Thickness of the solum: 35 to 60 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Content of rock fragments: 0 to 10 percent throughout
Reaction: Strongly acid or very strongly acid throughout, except where lime has been applied

A or Ap horizon:
Color—hue of 7.5YR or 10YR, value of 3, and chroma of 3 or 4

BA horizon (where present):
Color—hue of 10YR, value of 4, and chroma of 4
Texture—loam, silty clay loam, or clay loam

Bt horizon (upper part):
Color—hue of 5YR to 10YR, value of 4 or 5, and chroma of 4 to 8
Texture—loam

Bt horizon (lower part):
Color—hue of 5YR to 10YR, value of 4 or 5, and chroma of 6 or 8; or variegated in shades of red, brown, and yellow
Texture—loam, silty clay loam, or clay loam
Redoximorphic features—none to many in shades of red, brown, and yellow

BC horizon:
Color—hue of 7.5YR, value of 4 or 5, and chroma of 6; or variegated in shades of red, brown, yellow, and gray
Texture—sandy clay loam
Redoximorphic features—none to many in shades of red, brown, yellow, and gray

C horizon (where present):
Color—hue of 7.5YR, value of 5, and chroma of 4 or 6; or variegated in shades of red, brown, and yellow
Redoximorphic features—none to many in shades of red, brown, and yellow

Shack Series

Major land resource area: Southern Appalachian Ridges and Valleys
Parent material: Residuum from cherty limestone
Landform: Ridges
Depth class: Very deep
Drainage class: Moderately well drained
Seasonal high water table: Perched; at a depth of 1.5 to 2.5 feet
Permeability: Moderately slow
Slope range: 2 to 30 percent
Classification: Fine-loamy, siliceous, semiactive, thermic Oxyaquic Paleudults

Geographically Associated Soils

- Bodine soils, which are somewhat excessively drained, do not have fragic properties, and have more than 35 percent chert fragments throughout the profile
- Dewey soils, which have more than 35 percent clay and less than 15 percent chert fragments in the control section and do not have fragic properties
- Fullerton soils, which have more than 35 percent clay in the control section and do not have fragic properties
- Guthrie soils, which are on flood plains, on flats, and in depressions and are poorly drained
- Minvale soils, which do not have fragic properties and are well drained
- Wax soils, which are in drainageways and on low terraces

Typical Pedon

Shack gravelly silt loam, in an area of Shack-Minvale-Bodine complex, 6 to 15 percent slopes; 0.7 mile north on Georgia Highway 71 from the intersection of Georgia Highway 2 and Georgia Highway 71, about 3.0 miles northeast on McGaughey Chapel Road, 0.6 mile east on Clark Hill Road, 200 feet north of Clark Hill Road; Whitfield County, Georgia; USGS topographic quadrangle, Cohutta, GA-TN (1972); lat. 34 degrees 56 minutes 17 seconds N. and long. 84 degrees 56 minutes 08 seconds W.

A—0 to 6 inches; brown (10YR 4/3) gravelly silt loam; weak fine granular structure; very friable; common very fine, fine, and medium roots; 15 percent chert fragments; strongly acid; clear smooth boundary.

BA—6 to 15 inches; light yellowish brown (10YR 6/4) gravelly silt loam; weak medium subangular blocky structure; friable; common very fine, fine, and medium roots; 20 percent chert fragments; very strongly acid; gradual wavy boundary.

Bt—15 to 22 inches; yellowish brown (10YR 5/6) gravelly silty clay loam; moderate medium subangular blocky structure; friable; few very fine and few fine roots; few faint clay films on faces of peds; 20 percent chert fragments; very strongly acid; clear wavy boundary.

Btx—22 to 29 inches; variegated yellowish brown (10YR 5/4), light gray (10YR 7/3), and yellowish red (5YR 5/6) gravelly silty clay loam; weak fine angular blocky structure; firm; brittle; few faint clay films on faces of peds; 30 percent chert fragments; very strongly acid; gradual wavy boundary.

B´t1—29 to 45 inches; strong brown (7.5YR 5/6) gravelly silty clay loam; common medium faint yellowish red (5YR 5/6) mottles; weak medium subangular blocky structure; friable; few faint clay films on faces of peds; 20 percent chert fragments; very strongly acid; gradual wavy boundary.

B´t2—45 to 60 inches; red (2.5YR 4/8) gravelly silty clay loam; common medium distinct strong brown (7.5YR 5/8) mottles; moderate medium subangular blocky structure; friable; few faint clay films on faces of peds; 20 percent chert fragments; very strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Content of rock fragments: 15 to 35 percent chert fragments throughout
Reaction: Strongly acid or very strongly acid throughout, except where lime has been applied
Other distinctive features: Depth to layers with fragic properties ranges from 20 to 40 inches from surface

A or Ap horizon:
Color—hue of 10YR, value of 4 or 5, and chroma of 2 or 3

E horizon (where present):
Color—hue of 10YR, value of 5 or 6, and chroma of 3 or 4
Texture—gravelly silt loam or gravelly loam

BA or BE horizon (where present):
Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 4
Texture—gravelly silt loam or gravelly loam

Bt horizon:
Color—hue of 10YR, value of 5 or 6, and chroma of 4 or 6
Texture—gravelly silt loam, gravelly silty clay loam, or gravelly clay loam

Btx horizon:
Color—hue of 10YR, value of 5 to 7, and chroma of 6; or variegated in shades of red, brown, and gray
Texture—gravelly loam, gravelly silty clay loam, or gravelly clay loam
Redoximorphic features—common to many in shades of red, brown, and gray

B´t horizon:
Color—hue of 2.5YR to 10YR, value of 4 or 5, and chroma of 6 or 8; or variegated in shades of red, brown, and gray
Texture—gravelly silty clay loam or gravelly clay loam
Mottles—none to many in shades of red, brown, and gray

Note: The Shack soils in this survey area are taxadjuncts to the series because they have a zone of seasonal saturation (seasonal high water table) within 40 inches of the surface.

Shellbluff Series

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Flood plains
Parent material: Alluvium from sedimentary, metasedimentary, and metamorphic rocks
Depth class: Very deep
Drainage class: Well drained
Seasonal high water table: Apparent; at a depth of 2.5 to 6.0 feet
Permeability: Moderate
Slope range: 0 to 2 percent
Classification: Fine-silty, mixed, active, thermic Fluventic Dystrudepts

Geographically Associated Soils

- Ketona soils, which are clayey and are poorly drained
- Arkabutla and Chenneby soils, which are somewhat poorly drained
- Docena soils, which are on flats, in drainageways, and on stream terraces and are moderately well drained
- Ketona soils, which have more than 35 percent clay in the control section and are poorly drained
- Sequatchie soils, which are fine-loamy, have an umbric epipedon, and are on stream terraces
- Subligna soils, which have more than 35 percent rock fragments throughout the profile
- Whitwell soils, which are fine-loamy and are moderately well drained

Typical Pedon

Shellbluff silt loam, 0 to 2 percent slopes, occasionally flooded; 3.2 miles north of intersection of U.S. Highway 76 and Georgia Highway 286 on Georgia Highway 86, about 3.0 miles northeast on Lower Kings Bridge Road, 350 feet north and 580 feet east of bridge over Conasauga River; Whitfield County, Georgia; USGS topographic quadrangle, Chatsworth, GA (1972); lat. 34 degrees 51 minutes 16 seconds N. and long. 84 degrees 50 minutes 20 seconds W.

Ap—0 to 7 inches; brown (10YR 4/3) silt loam; weak fine granular structure; very friable; common very fine and many fine roots; strongly acid; abrupt smooth boundary.

AB—7 to 19 inches; brown (10YR 4/3) loam; weak coarse subangular blocky structure; friable; common very fine and fine roots; strongly acid; gradual wavy boundary.

Bw1—19 to 29 inches; dark yellowish brown (10YR 4/4) loam; weak coarse prismatic structure parting to weak medium subangular blocky; friable; common very fine and fine roots; very strongly acid; gradual wavy boundary.

Bw2—29 to 41 inches; dark yellowish brown (10YR 4/4) silty clay loam; weak coarse prismatic structure parting to weak medium subangular blocky; friable; common very fine and fine roots; very strongly acid; gradual wavy boundary.

Bw3—41 to 50 inches; dark yellowish brown (10YR 4/4) silt loam; weak medium subangular blocky structure; friable; few very fine roots; few medium faint yellowish brown (10YR 5/4) iron depletions; very strongly acid; gradual wavy boundary.

BC1—50 to 64 inches; dark yellowish brown (10YR 4/4) fine sandy loam; weak medium subangular blocky structure; very friable; few fine roots; few fine distinct strong brown (7.5YR 4/6) masses of oxidized iron; common medium faint light olive brown (2.5Y 5/4) iron depletions; very strongly acid; clear wavy boundary.

BC2—64 to 80 inches; dark yellowish brown (10YR 4/4), light brownish gray (2.5Y 6/2), and dark yellowish brown (10YR 3/4) and (2.5Y 3/2) fine sandy loam; weak medium subangular blocky structure; very friable; few very fine roots; very strongly acid.

Range in Characteristics

Thickness of the solum: 46 to more than 60 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Content of rock fragments: 0 to 5 percent throughout
Reaction: Strongly acid or very strongly acid throughout

Ap or A horizon:
Color—hue of 10YR, value of 4 or 5, and chroma of 3 or 4

AB horizon (where present):
Color—hue of 10YR, value of 4, and chroma of 3 or 4

Bw horizon:
Color—hue of 10YR, value of 4 or 5, and chroma of 4 to 8; or variegated in shades of yellow, brown, and gray
Texture—silt loam, loam, silty clay loam, or clay loam
Redoximorphic features—none to common in shades of yellow, brown, and gray

BC or C horizon (where present):
Color—hue of 10YR, value of 4, and chroma of 3 or 4; or variegated in shades of yellow, brown, and gray
Texture—fine sandy loam, silt loam, or loam
Redoximorphic features—few to many in shades of yellow, brown, and gray

Shelocta Series

Major land resource area: Southern Blue Ridge
Landform: Mountains
Parent material: Colluvium from metasandstone and phyllite
Depth class: Very deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Slope range: 2 to 15 percent
Classification: Fine-loamy, mixed, active, thermic Typic Hapludults

Geographically Associated Soils

- Cataska and Tsali soils, which have phyllite and metasandstone bedrock at a depth of 10 to 20 inches and are in the higher landscape positions
- Craigsville soils, which have more than 35 percent rock fragments in the control section and are on flood plains
- Junaluska soils, which have phyllite and metasandstone bedrock at a depth of 20 to 40 inches
- Suches soils, which have less than 15 percent rock fragments in the control section and are on flood plains

Typical Pedon

Shelocta channery loam, 2 to 15 percent slopes; 4.1 miles south on Mountain Road from intersection of Georgia Highway 52 and Mountain Road, 4.0 miles east on Peoples Lake Road, 0.3 mile northeast on Forest Service road, 100 feet east of road; Murray County, Georgia; USGS topographic quadrangle, Ramhurst, GA (1979); lat. 34 degrees 44 minutes 52 seconds N. and long. 84 degrees 40 minutes 15 seconds W.

A—0 to 4 inches; dark yellowish brown (10YR 3/4) channery loam; moderate fine granular structure; very friable; common fine roots; 15 percent phyllite channers; strongly acid; abrupt smooth boundary.

Bt1—4 to 12 inches; strong brown (7.5YR 4/6) channery silty clay loam; moderate medium subangular blocky structure; friable; few fine roots; few faint clay films on faces of peds; 15 percent phyllite channers; very strongly acid; clear wavy boundary.

Bt2—12 to 30 inches; strong brown (7.5YR 4/6) channery silty clay loam; moderate medium subangular blocky structure; friable; few fine roots; few faint clay films on faces of peds; 25 percent phyllite channers; very strongly acid; clear wavy boundary.

Bt3—30 to 45 inches; strong brown (7.5YR 4/6) silty clay loam; moderate coarse subangular blocky structure; friable; few fine roots; few faint clay films on faces of peds; 10 percent phyllite or sandstone channers; very strongly acid; clear wavy boundary.

C1—45 to 52 inches; variegated yellowish brown (10Y 5/6) and brownish yellow (10YR 6/6) channery loam; massive; friable; 10 percent phyllite or sandstone channers; very strongly acid; clear wavy boundary.

C2—52 to 60 inches; variegated yellowish brown (10YR 5/6) and brownish yellow (10YR 6/6) very channery loam; massive; friable; 30 percent phyllite channers; very strongly acid.

Range in Characteristics

Thickness of the solum: 40 to more than 60 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches

Content of rock fragments: 0 to 50 percent, except in the A horizon, which ranges from 0 to 35 percent
Reaction: Strongly acid or very strongly acid throughout

A or Ap horizon:
Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 3 or 4

Bt horizon:
Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 6 or 8
Texture—channery loam, channery silty clay loam, gravelly silty clay loam, or silty clay loam

BC horizon (where present):
Color—hue of 10YR, value of 4 to 6, and chroma of 4 or 6
Texture—channery silty clay loam, gravelly silty clay loam, or silty clay loam

C horizon (where present):
Color—hue of 10YR, value of 5 or 6, and chroma of 4 or 6; or variegated in shades of brown and yellow
Texture—very channery loam, very gravelly loam, channery loam, or gravelly silt loam

Sipsey Series

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Ridges
Parent material: Loamy residuum from sandstone
Depth class: Moderately deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Slope range: 4 to 30 percent
Classification: Fine-loamy, siliceous, semiactive, thermic Typic Hapludults

Geographically Associated Soils

- Albertville soils, which have more than 35 percent clay in the control section and have shale bedrock at a depth of 40 to 60 inches
- Nauvoo soils, which have B horizons with a hue of 5YR or redder and have sandstone or interbedded sandstone and shale bedrock at a depth of 40 to 60 inches
- Townley soils, which have more than 35 percent clay in the control section and have shale or interbedded sandstone and shale bedrock at a depth of 20 to 40 inches

Typical Pedon

Sipsey fine sandy loam, 4 to 15 percent slopes; 5.8 miles south of Georgia-Tennessee state line on U.S. Highway 411, about 400 feet west on logging road, in road cut on north side of road; Murray County, Georgia; USGS topographic quadrangle, Tennga, GA-TN (1968); lat. 34 degrees 54 minutes 43 seconds N. and long. 84 degrees 44 minutes 57 seconds W.

A—0 to 7 inches; yellowish brown (10YR 5/4) fine sandy loam; weak fine granular structure; very friable; many very fine, fine, medium, and coarse roots; strongly acid; clear wavy boundary.
BA—7 to 16 inches; brownish yellow (10YR 6/6) fine sandy loam; weak fine granular structure and weak medium subangular blocky structure; very friable; many very

fine, fine, medium, and coarse roots; 10 percent sandstone fragments; strongly acid; clear wavy boundary.

Bt—16 to 34 inches; yellowish red (5YR 5/6) sandy clay loam; common medium distinct strong brown (7.5YR 5/8) mottles; weak medium subangular blocky structure; friable; many very fine, fine, medium, and coarse roots; 10 percent sandstone fragments; very strongly acid; clear wavy boundary.

Cr—34 to 60 inches; multicolored, weathered blocky sandstone with some shale fragments bedded at angles up to 30 degrees.

Range in Characteristics

Thickness of the solum: 20 to 40 inches
Depth to soft bedrock: 20 to 40 inches
Depth to hard bedrock: 40 to more than 60 inches
Content of rock fragments: 0 to 15 percent, except for the lower part of the Bt horizon, which may range up to 20 percent
Reaction: Strongly acid or very strongly acid throughout, except where lime has been applied

A or Ap horizon:
Color—hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 3 or 4

E horizon (where present):
Texture—sandy loam or fine sandy loam

BA or BE horizon (where present):
Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 4 or 6
Texture—sandy loam or fine sandy loam

Bt horizon:
Color—hue of 5YR to 10YR, value of 5 or 6, and chroma of 4 to 8
Texture—loam, sandy clay loam, or clay loam
Mottles—none to common in shades of yellow and brown

Cr horizon:
Type of bedrock—weathered sandstone and interbedded shale bedded at angles from 10 to 70 degrees

Subligna Series

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Flood plains
Parent material: Alluvium washed from sandy and gravelly upland soils
Depth class: Very deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Rapid
Slope range: 0 to 5 percent
Classification: Loamy-skeletal, siliceous, subactive, thermic Fluventic Dystrudepts

Geographically Associated Soils

- Chenneby soils, which are fine-silty, have less than 15 percent rock fragments in the control section, and are somewhat poorly drained
- Shellbluff soils, which are fine-silty and have less than 15 percent rock fragments in the control section
- Wax soils, which have less than 15 percent rock fragments in the control section, have fragic properties, and are moderately well drained

Typical Pedon

Subligna extremely gravelly sandy loam, 0 to 5 percent slopes, occasionally flooded; 0.6 mile north of U.S. Highway 136 on Chestnut Mountain Road, 40 feet west of road on east side of creek bank; Whitfield County, Georgia; USGS topographic quadrangle, Sugar Valley, GA (1981); lat. 34 degrees 37 minutes 05 seconds N. and long. 85 degrees 02 minutes 52 seconds W.

A—0 to 4 inches; dark grayish brown (10YR 4/2) extremely gravelly sandy loam; weak fine granular structure; very friable; many very fine, fine, medium, and coarse roots; 60 percent sandstone gravel; strongly acid; clear wavy boundary.

Bw—4 to 16 inches; strong brown (7.5YR 5/6) extremely gravelly sandy loam; weak medium granular structure and weak fine subangular blocky structure; friable; many very fine, fine, medium, and coarse roots; 70 percent sandstone gravel; very strongly acid; abrupt wavy boundary.

C—16 to 60 inches; brownish yellow (10YR 6/6) extremely gravelly loamy sand; massive; very friable; few very fine, fine, medium, and coarse roots; 70 percent sandstone gravel; strongly acid.

Range in Characteristics

Thickness of the solum: 16 to 45 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Content of rock fragments: 35 to 85 percent throughout
Reaction: Strongly acid or very strongly acid throughout

A horizon:
Color—hue of 10YR or 2.5Y, value of 3 or 4, and chroma of 2 to 4

E horizon (where present):
Color—hue of 10YR, value of 4 to 6, and chroma of 4
Texture—extremely gravelly sandy loam or gravelly loam

Bw horizon:
Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 4 or 6
Texture—extremely gravelly sandy loam, extremely gravelly silt loam, very gravelly fine sandy loam, or very gravelly silt loam
Mottles—none to few in shades of brown

C horizon:
Color—hue of 7.5YR or 10YR, value of 4 to 7, and chroma of 4 to 8; or variegated in shades of brown, yellow, and gray
Texture—extremely gravelly loamy sand, or extremely gravelly sandy loam
Mottles—none to many in shades of brown, yellow, and gray

Suches Series

Major land resource area: Southern Blue Ridge
Landform: Flood plains
Parent material: Alluvium from metasedimentary and metamorphic rocks
Depth class: Very deep
Drainage class: Well drained
Seasonal high water table: Apparent; at a depth of 3.0 to 6.0 feet
Permeability: Moderate
Slope range: 0 to 2 percent
Classification: Fine-loamy, mixed, semiactive, mesic Fluventic Dystrudepts

Geographically Associated Soils

- Craigsville soils, which have more than 35 percent rock fragments in the control section
- Shelocta soils, which are on footslopes and benches and have an argillic horizon

Typical Pedon

Suches loam, 0 to 2 percent slopes, occasionally flooded; 7.6 miles northeast of U.S. Highway 411 on old Georgia Highway 2, about 200 feet north of road in camp area; Murray County, Georgia; USGS topographic quadrangle, Tennga, GA-TN (1968); lat. 34 degrees 58 minutes 46 seconds N. and long. 84 degrees 38 minutes 23 seconds W.

Ap—0 to 6 inches; brown (10YR 4/3) loam; weak fine and medium granular structure; very friable; many very fine, fine, medium, and coarse roots; moderately acid; gradual wavy boundary.

Bw1—6 to 16 inches; brown (10YR 4/3) loam; weak medium subangular blocky structure; friable; many very fine, fine, medium, and coarse roots; very strongly acid; gradual wavy boundary.

Bw2—16 to 32 inches; dark brown (10YR 3/3) loam; weak fine and medium subangular blocky structure; friable; common very fine and fine and few medium roots; very strongly acid; clear wavy boundary.

Bw3—32 to 45 inches; dark yellowish brown (10YR 4/4) loam; weak fine and medium subangular blocky structure; friable; very strongly acid; clear wavy boundary.

Bw4—45 to 55 inches; dark yellowish brown (10YR 4/4) sandy loam; weak fine and medium subangular blocky structure; friable; 10 percent phyllite channers; very strongly acid; abrupt wavy boundary.

2C—55 to 60 inches; dark yellowish brown (10YR 4/4) loamy sand; massive; very strongly acid.

Range in Characteristics

Thickness of the solum: 35 to 60 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Content of rock fragments: 0 to 10 percent throughout
Reaction: Strongly acid or very strongly acid throughout, except where lime has been applied

Ap or A horizon:
Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 2 to 4

Bw horizon:
Color—hue of 7.5YR or 10YR, value of 4 to 7, and chroma of 3 to 8
Texture—sandy loam, fine sandy loam, silt loam, loam, sandy clay loam, silty clay loam, or clay loam
Mottles—none to few in shades of red, yellow, and brown

BC or C horizon (where present):
Color—hue of 7.5YR or 10YR, value of 3 to 7, and chroma of 3 to 8
Texture—loamy sand, sandy loam, fine sandy loam, silt loam, sandy clay loam, or clay loam
Mottles—none to few in shades of red, yellow, brown, and gray

Townley Series

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Ridges

Parent material: Residuum from shale or interbedded sandstone and shale
Depth class: Moderately deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Slow
Slope range: 2 to 60 percent
Classification: Fine, mixed, semiactive, thermic Typic Hapludults

Geographically Associated Soils

- Albertville, Cunningham, and Enders soils, which have shale bedrock at a depth of 40 to 60 inches
- Conasauga soils, which have B horizons with a hue of 7.5YR and yellower and are moderately well drained
- Hector soils, which have sandstone bedrock at a depth of 10 to 20 inches
- Montevallo soils, which have shale bedrock at a depth of 10 to 20 inches
- Nella soils, which have less than 35 percent clay in the control section, have 15 to 35 percent rock fragments throughout the profile, and have sandstone bedrock at a depth of more than 60 inches
- Panama soils, which have less than 35 percent clay in the control section, have more than 35 percent rock fragments in the control section, and have shale bedrock at a depth of more than 60 inches
- Sipsey soils, which have less than 35 percent clay in the control section

Typical Pedon

Townley silt loam, 6 to 15 percent slopes; 0.2 mile south on Beaverdale Road from junction of Beaverdale Road and Georgia Highway 2, about 3.9 miles south on River Road, in road cut on east side of River Road; Whitfield County, Georgia; USGS topographic quadrangle, Chatsworth, GA (1972); lat. 34 degrees 51 minutes 46 seconds N. and long. 84 degrees 50 minutes 37 seconds W.

A—0 to 5 inches; yellowish brown (10YR 5/4) silt loam; weak medium granular structure; very friable; many very fine, fine, medium, and coarse roots; 10 percent shale fragments; very strongly acid; gradual wavy boundary.

Bt1—5 to 16 inches; strong brown (7.5YR 5/8) silty clay; many fine distinct brownish yellow (10YR 6/8) mottles; moderate medium subangular blocky structure; friable; few very fine and fine roots; few faint and distinct clay films on faces of peds; 10 percent shale fragments; very strongly acid; gradual wavy boundary.

Bt2—16 to 27 inches; strong brown (7.5YR 5/8) channery silty clay loam; many medium distinct brownish yellow (10YR 6/8) and few fine prominent red (2.5YR 4/6) mottles; moderate medium subangular blocky structure; friable; few faint and distinct clay films on faces of peds; 20 percent shale fragments; very strongly acid; clear wavy boundary.

Cr—27 to 60 inches; multicolored, rippable shale bedrock bedded at angles up to 35 degrees.

Range in Characteristics

Thickness of the solum: 20 to 40 inches
Depth to soft bedrock: 20 to 40 inches
Depth to hard bedrock: More than 60 inches
Content of rock fragments: 0 to 30 percent sandstone pebbles and 5 to 10 percent shale fragments in the A, E, BE, and upper Bt horizons and 10 to 30 percent shale and sandstone fragments in the lower Bt and BC horizons
Reaction: Strongly acid or very strongly acid throughout, except where lime has been applied

A or Ap horizon:
Color—hue of 10YR, value of 4 to 6, and chroma of 3 to 6

Bt horizon:
Color—hue of 5YR or 7.5YR, value of 5, and chroma of 6 or 8
Texture—channery silty clay loam, silty clay, or clay
Mottles—none to many in shades of red, yellow, and brown

BC horizon (where present):
Color—hue of 5YR to 10YR, value of 5 or 6, and chroma of 6; or variegated in shades of red, yellow, and brown
Mottles—few to many in shades of red, yellow, and brown

Cr horizon:
Type of bedrock—multicolored, rippable shale bedded at angles from 35 to 60 degrees

Tsali Series

Major land resource area: Southern Blue Ridge
Landform: Mountains
Parent material: Residuum from weathered metasandstone and phyllite rocks
Depth class: Shallow
Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Slope range: 5 to 70 percent
Classification: Loamy, mixed, subactive, mesic, shallow Typic Hapludults

Geographically Associated Soils

- Cataska soils, which have more than 35 percent rock fragments in the control section and do not have an argillic horizon
- Cheoah soils, which have an umbric epipedon, do not have an argillic horizon, and have phyllite and metasandstone bedrock at a depth of 40 to 60 inches
- Edneytown soils, which have metamorphic or igneous bedrock at a depth of more than 60 inches
- Jefferson soils, which have metasandstone bedrock at a depth of more than 60 inches
- Junaluska soils, which have phyllite and metasandstone bedrock at a depth of 20 to 40 inches
- Lily soils, which have lithic metasandstone bedrock at a depth of 20 to 40 inches
- Pigeonroost soils, which have metamorphic or igneous bedrock at a depth of 20 to 40 inches
- Shelocta soils, which have bedrock at a depth of more than 40 inches and are on footslopes and benches

Typical Pedon

Tsali channery loam, 5 to 25 percent slopes; 3.7 miles south on Mountain Road from intersection of Georgia Highway 52 and Mountain Road, 2.2 miles east on Peoples Lake Road, 0.2 mile southeast on dirt road, in road cut on east side of dirt road; Murray County, Georgia; USGS topographic quadrangle, Ramhurst, GA (1977); lat. 34 degrees 43 minutes 50 seconds N. and long. 84 degrees 41 minutes 45 seconds W.

A—0 to 4 inches; strong brown (7.5YR 5/6) channery loam; weak fine granular structure; very friable; many very fine and fine, common medium, and few coarse

roots; 30 percent phyllite and metasandstone channers; very strongly acid; clear wavy boundary.

Bt—4 to 14 inches; yellowish red (5YR 5/6) clay loam; weak medium subangular blocky structure; friable; common very fine and fine and few medium and coarse roots; many faint and common distinct clay films on faces of peds; 10 percent phyllite and metasandstone channers; strongly acid; clear wavy boundary.

Cr—14 to 60 inches; multicolored, rippable, interbedded phyllite and metasandstone bedded at angles up to 60 degrees

Range in Characteristics

Thickness of the solum: 10 to 20 inches
Depth to soft bedrock: 10 to 20 inches
Depth to hard bedrock: More than 30 inches
Content of rock fragments: 0 to 35 percent in all horizons
Reaction: Very strongly acid or strongly acid throughout

A horizon:
Color—hue of 7.5YR or 10YR, value of 3 or 4, and chroma of 3 to 6

Bt horizon:
Color—hue of 5YR to 10YR, value of 4 or 5, and chroma of 6 or 8
Texture—channery loam, channery sandy clay loam, channery clay loam, or clay loam

Cr horizon:
Type of bedrock—multicolored, rippable, interbedded metasedimentary and phyllite rocks bedded from 10 to 90 degrees

Wax Series

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Drainageways
Parent material: Loamy alluvium from cherty limestone
Depth class: Moderately deep
Drainage class: Moderately well drained
Seasonal high water table: Perched; at a depth of 1.5 to 3.0 feet
Permeability: Slow
Slope range: 0 to 6 percent
Classification: Fine-loamy, siliceous, thermic Typic Fragiudults

Geographically Associated Soils

- Bodine soils, which are somewhat excessively drained, have more than 35 percent chert fragments throughout the profile, do not have fragic properties, and are on adjacent uplands
- Dewy soils, which have more than 35 percent clay in the control section, are well drained, do not have fragic properties, and are on adjacent uplands
- Guthrie soils, which are poorly drained
- Fullerton soils, which have more than 35 percent clay in the control section, are well drained, do not have fragic properties, and are on adjacent uplands
- Minvale soils, which have 15 to 35 percent chert fragments in the control section, are well drained, do not have fragic properties, and are in the higher landscape positions
- Shack soils, which have 15 to 35 percent chert fragments in the control section and are on adjacent uplands
- Subligna soils, which are well drained, do not have fragic properties, and have more than 35 percent rock fragments throughout the profile

Typical Pedon

Wax fine sandy loam, 2 to 6 percent slopes, rarely flooded; 1.0 mile west of Georgia Highway 71 on Wilson Caldwell Road, 0.6 mile south on Red Clay Road, 0.3 mile west on Old Apison Road, in road cut on left side of road; Whitfield County, Georgia; USGS topographic quadrangle, Cohutta, GA-TN (1972); lat. 34 degrees 57 minutes 03 seconds N. and long. 84 degrees 57 minutes 35 seconds W.

A1—0 to 3 inches; brown (10YR 5/3) fine sandy loam; weak fine granular structure; very friable; many very fine, fine, medium, and coarse roots; 10 percent chert fragments; strongly acid; clear wavy boundary.

A2—3 to 9 inches; brown (10YR 5/3) silt loam; common medium distinct brownish yellow (10YR 6/6) mottles; weak medium granular structure; very friable; many very fine, fine, medium, and coarse roots; 10 percent chert fragments; strongly acid; clear wavy boundary.

BE—9 to 22 inches; light yellowish brown (10YR 6/4) silt loam; few medium distinct brownish yellow (10YR 6/6) mottles; weak medium granular structure and weak medium subangular blocky structure; very friable; many very fine and fine and common medium and coarse roots; 10 percent chert fragments; strongly acid; clear wavy boundary.

Bt—22 to 29 inches; brownish yellow (10YR 6/6) silty clay loam; common medium distinct light yellowish brown (10YR 6/4) mottles; weak fine subangular blocky structure; friable; many very fine and fine and common medium and coarse roots; few faint and distinct clay films on faces of peds; 10 percent chert fragments; very strongly acid; abrupt wavy boundary.

Btx1—29 to 36 inches; light yellowish brown (2.5Y 6/4) gravelly clay loam; weak medium platy structure and weak medium angular blocky structure; firm; few very fine, fine, and medium roots; few faint clay films on faces of peds; 30 percent chert fragments; brittle; few medium prominent strong brown (7.5YR 5/8) masses of oxidized iron; common medium distinct light gray (10YR 7/2) iron depletions; very strongly acid; clear wavy boundary.

Btx2—36 to 60 inches; light yellowish brown (2.5Y 6/4) extremely gravelly clay loam; moderate medium platy structure and moderate medium angular blocky structure; very firm; few faint clay films on faces of peds; 60 percent chert fragments; extremely brittle; few medium prominent strong brown (7.5YR 5/8) masses of oxidized iron; common medium distinct light gray (10YR 7/2) iron depletions; very strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Content of rock fragments: 5 to 15 percent, except in the Btx and Btxg horizons, which range from 20 to 60 percent
Reaction: Strongly acid or very strongly acid throughout
Other distinctive features: Depth to horizons with dense and brittle properties ranges from 20 to 40 inches

A horizon:
Color—hue of 10YR, value of 4 or 5, and chroma of 2 to 4

BE horizon:
Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 4
Texture—silt loam or loam

Bt horizon:
Color—hue of 10YR, value of 5 or 6, and chroma of 4

Texture—loam, silty clay loam, or clay loam
Mottles—none to common in shades of brown

Btx horizon:
Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 4 or 6; or variegated in shades of yellow, brown, and gray
Texture—extremely gravelly clay loam, very gravelly sandy clay loam, very gravelly loam, or gravelly clay loam
Redoximorphic features—few to many in shades of yellow, brown, and gray

Waynesboro Series

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Stream terraces and hills
Parent material: Old alluvium from sedimentary and metasedimentary rocks
Depth class: Very deep
Drainage class: Well drained
Depth to seasonal high water table: More than 6.0 feet
Permeability: Moderate
Slope range: 2 to 15 percent
Classification: Fine, kaolinitic, thermic Typic Paleudults

Geographically Associated Soils

- Enders soils, which have very slow permeability and have shale bedrock at a depth of 40 to 60 inches
- Dewey soils, which have less than 20 percent sand in the control section and have limestone bedrock at a depth of more than 60 inches
- Fullerton soils, which have 15 to 35 percent chert fragments throughout the profile
- Hanceville soils, which have dark red colors throughout the upper part of the subsoil and have sandstone bedrock at a depth of more than 60 inches
- Sequatchie soils, which have less than 35 percent clay in the control section, have an umbric epipedon, have B horizons with a hue of 7.5YR or yellower, and have a solum less than 60 inches thick

Typical Pedon

Waynesboro sandy loam, 6 to 15 percent slopes; 1.6 miles north on U.S. Highway 411 from the intersection of U.S. Highway 411 and Georgia Highway 2, about 0.4 mile west on Booger Bridge Road, 0.5 mile south on Tennga Road, 450 feet north on Shields Road, 25 feet east of Shields Road; Murray County, Georgia; USGS topographic quadrangle, Tennga, GA-TN (1968); lat. 34 degrees 58 minutes 27 seconds N. and long. 84 degrees 44 minutes 41 seconds W.

Ap—0 to 6 inches; brown (7.5YR 4/4) sandy loam; weak fine granular structure; very friable; many very fine and fine roots; 5 percent rounded quartz gravel and cobbles; moderately acid; abrupt smooth boundary.
Bt1—6 to 20 inches; red (2.5YR 4/6) clay loam; moderate medium subangular blocky structure; friable; few fine roots; 5 percent rounded quartz gravel and cobbles; very strongly acid; gradual wavy boundary.
Bt2—20 to 36 inches; dark red (2.5YR 3/6) clay loam; moderate medium subangular blocky structure; friable; few fine roots; 5 percent rounded quartz gravel and cobbles; very strongly acid; gradual wavy boundary.
Bt3—36 to 60 inches; dark red (2.5YR 3/6) clay loam; common medium prominent strong brown (7.5YR 5/8) mottles; moderate medium subangular blocky structure; firm; few fine roots; 10 percent rounded quartz gravel and cobbles; very strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Content of rock fragments: 0 to 15 percent throughout
Reaction: Strongly acid or very strongly acid throughout, except where lime has been applied

Ap horizon:
Color—hue of 5YR or 7.5YR, value of 4 or 5, and chroma of 4 or 6

BE horizon (where present):
Color—hue of 5YR or 7.5YR, value of 4 to 6, and chroma of 6
Texture—silt loam or loam

Bt horizon (upper part):
Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 6
Texture—sandy clay loam, clay loam, or clay
Mottles—none to common in shades of red, yellow, and brown

Bt horizon (lower part):
Color—hue of 2.5YR or 5YR, value of 3 to 5, and chroma of 6 or 8
Texture—clay loam or clay
Mottles—few to many in shades of red, yellow, and brown

Whitwell Series

Major land resource area: Southern Appalachian Ridges and Valleys
Landform: Stream terraces and flood plains
Parent material: Loamy alluvium
Depth class: Very deep
Drainage class: Moderately well drained
Seasonal high water table: Apparent; at a depth of 1.5 to 3.0 feet
Permeability: Moderate
Slope range: 0 to 6 percent
Classification: Fine-loamy, siliceous, semiactive, thermic Aquic Hapludults

Geographically Associated Soils

- Arkabutla and Chenneby soils, which are fine-silty and are somewhat poorly drained
- Capshaw soils, which have more than 35 percent clay in the control section and have limestone bedrock at a depth of 40 to 80 inches
- Docena soils, which are fine-silty
- Sequatchie soils, which are well drained and have an umbric epipedon
- Shellbluff soils, which are fine-silty and are well drained

Typical Pedon

Whitwell silt loam, 0 to 2 percent slopes, occasionally flooded; 0.2 mile south on Beaverdale Road from junction of Beaverdale Road and Georgia Highway 2, about 3.3 miles south on River Road, 2,000 feet southeast on farm road in Conasauga River flood plain; Whitfield County, Georgia; USGS topographic quadrangle, Chatsworth, GA (1972); lat. 34 degrees 52 minutes 07 seconds N. and long. 84 degrees 49 minutes 49 seconds W.

Ap—0 to 4 inches; brown (10YR 5/3) silt loam; weak medium granular structure; friable; many very fine and fine and common medium roots; few quartz gravel; moderately acid; clear smooth boundary.

BA—4 to 6 inches; brown (10YR 5/3) clay loam; many medium distinct yellowish brown (10YR 5/6) mottles; weak fine and medium subangular blocky structure; friable; common very fine, fine, and medium roots; few quartz gravel; moderately acid; clear smooth boundary.

Bt1—6 to 19 inches; brownish yellow (10YR 6/6) clay loam; moderate medium subangular blocky structure; firm; few very fine and fine roots; common distinct and common faint clay films on faces of peds; few fine manganese concretions; few quartz gravel; very strongly acid; gradual wavy boundary.

Bt2—19 to 24 inches; brownish yellow (10YR 6/6) clay loam; moderate medium subangular blocky structure; firm; few very fine roots; common distinct and faint clay films on faces of peds; few fine manganese concretions; few quartz gravel; few fine faint strong brown (7.5YR 5/6) masses of oxidized iron; common medium prominent light gray (2.5Y 7/2) iron depletions; very strongly acid; gradual wavy boundary.

BC—24 to 46 inches; strong brown (7.5YR 5/6) clay loam; weak medium subangular blocky structure; friable; few very fine roots; few fine clay films on faces of peds; few fine rounded manganese concretions; common medium prominent light brownish gray (10YR 6/2) iron depletions; very strongly acid; gradual wavy boundary.

C—46 to 60 inches; yellowish brown (10YR 5/8) sandy clay loam; massive; friable; few fine manganese concretions; common medium prominent light gray (10YR 7/1) iron depletions; very strongly acid.

Range in Characteristics

Thickness of the solum: 45 to 60 inches
Depth to soft bedrock: More than 60 inches
Depth to hard bedrock: More than 60 inches
Content of rock fragments: 0 to 15 percent throughout
Reaction: Moderately acid or strongly acid throughout, except where lime has been applied

Ap horizon:
Color—hue of 10YR, value of 4 or 5, and chroma of 3 or 4

BA, AB, or BE horizon (where present):
Color—hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 3 or 4
Texture—sandy loam, silty clay loam, or clay loam
Mottles—none to many in shades of brown

Bt horizon:
Color—hue of 10YR, value of 5 or 6, and chroma of 4 to 8
Texture—silt loam, silty clay loam, or clay loam
Redoximorphic features—few to many in shades of red, yellow, brown, and gray

BC horizon:
Color—hue of 7.5YR or 10YR, value of 5, and chroma of 6 or 8; or variegated in shades of red, yellow, brown, and gray
Texture—silt loam or clay loam
Redoximorphic features—common to many in shades of red, yellow, brown, and gray

C horizon:
Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 6 or 8
Texture—sandy loam or sandy clay loam
Redoximorphic features—few to many in shades of yellow, brown, and gray

Formation of the Soils

This section describes the factors of soil formation and relates them to the soils in the survey area.

Factors of Soil Formation

Soil characteristics are determined by the physical and mineralogical composition of the parent material; the plant and animal life on and in the soil; the climate under which the parent material accumulated and has existed since accumulation; the relief, or lay of the land; and the length of time that the forces of soil formation have acted on the soil material. All of these factors influence every soil, but the significance of each factor varies from place to place. In one area, one factor may dominate soil formation; in another area, a different factor may be dominant.

The interrelationships among these five factors are complex, and the effects of any one factor cannot be isolated and completely evaluated. It is convenient, however, to describe each factor separately and to indicate the probable effects of each.

Parent Material

Parent material is the unconsolidated mass in which a soil forms. The chemical and mineralogical composition of the soil is derived largely from the parent material.

The soils in Whitfield County and western Murray County are derived mainly from deposited sedimentary rocks of the Valley and Ridge physiographic province. The mountains and high ridges in Whitfield County are mainly sandstone with some chert. The soils derived from sandstone are Enders, Hector, Hanceville, Nauvoo, Nella, Sipsey, and Panama. The soils derived from chert are Bodine, Minvale, Fullerton, and Shack.

The soils in the mountainous eastern side of Murray County are derived mainly from slightly metamorphosed sedimentary rocks (metasedimentary) of the Blue Ridge physiographic province. The soils derived from these rocks are shallow to deep and are well drained. The metasedimentary rocks in eastern Murray County consist primarily of phyllite, metasandstone, slate, quartzite, metaconglomerate, and greywacke. The dominant soils weathered in these materials are Cataska, Tsali, Junaluska, Cheoah, and Lily. There is also some schist and gneiss in this area. The soils derived from schist and gneiss include Pigeonroost and Edneytown. The major land use of these soils is limited to recreation and timber production because of the strongly sloping to very steep topography.

Soils found on colluvial fans and footslopes of the high ridges and mountains are shallow to deep and are well drained. The soils found in Whitfield County that formed in colluvial fans and footslopes are Allen, Holston, Panama, Nella, and Subligna. The soils found on colluvial fans and footslopes in Murray County include Jefferson and Shelocta.

In the Valley and Ridge portion of Murray and Whitfield Counties, soils on the uplands are weathered from chert, limestone, shale, and sandstone. These soils range from shallow to deep and are well drained or moderately well drained. The soils that formed in shale include Albertville, Cunningham, Montevallo, Townley, Enders, and Conasauga. Soils that formed in sandstone and interbedded sandstone and shale

include Hanceville, Hector, Nella, Allen, Nauvoo, and Sipsey. Soils that weathered from cherty limestone are Fullerton, Minvale, Shack, and Bodine. The Dewey and Waynesboro soils are derived from highly weathered limestone or very old alluvium on uplands. Pasture, row crops, and timber production comprise the major land use for these soils.

Soils found at the heads of drainageways and along narrow drains are deep or very deep and are moderately well drained to poorly drained. In the Valley and Ridge portion of Murray and Whitfield Counties, the soils formed in materials weathered from shale, chert, sandstone, and limestone. These soils include Capshaw, Docena, Guthrie, Ketona, Subligna, and Wax.

Soils on flood plains and terraces are the primary soils in the survey area used for crop and sod production. In the Valley and Ridge portion of Whitfield and Murray Counties, the flood plain soils include Arkabutla, Chenneby, and Shellbluff. Soils on stream terraces are Capshaw, Holston, Whitwell, Docena, Waynesboro, and Sequatchie. The Capshaw, Docena, and Whitwell soils are moderately well drained. The Holston, Waynesboro, and Sequatchie soils are well drained. Soils on flood plains in the Blue Ridge portion of eastern Murray County include Craigsville and Suches. These soils are used primarily for pasture, row crops, and timber production.

Plants and Animals

The effects of plants, animals, and other organisms on soil formation are significant. Plants and animals increase the content of organic matter and nitrogen in the soil, increase or decrease the content of plant nutrients, and alter soil structure and porosity.

Plants recycle nutrients, add organic matter, and provide food and cover for animals. They stabilize the surface layer so that soil-forming processes can continue. They also provide a more stable environment for the soil-forming processes by protecting the soils from extremes in temperature.

The soils in Murray and Whitfield Counties formed under a succession of briers, brambles, and woody plants that yielded to pine and hardwoods. Later, the hardwoods suppressed most other plants and became the climax vegetation.

Animals rearrange soil material by roughening the surface, forming and filling channels, and shaping the peds and voids. The soil is mixed by ants, wasps, worms, and spiders, which make channels; by crustaceans, such as crayfish; and by turtles and foxes, which dig burrows. Humans affect the soil-forming process by tilling the crops, removing natural vegetation and establishing different plants, and reducing or increasing the level of fertility.

Bacteria, fungi, and other micro-organisms hasten the decomposition of organic matter and increase the rate at which minerals are released for plant growth.

The net gains and losses caused by plants and animals are important in Murray and Whitfield Counties. The relationships among plants and animals, climate, and parent material, however, are very close; therefore, the soils within the survey area do not differ significantly because of plants and animals alone.

Climate

The present climate of Murray and Whitfield Counties is thought to be similar to the climate that existed as the soils formed. The relatively high amount of rainfall and the warm temperatures contribute to the rapid soil formation and are the two most important climatic features that relate to soil properties.

Climate affects the formation of soils through its influence on the type and rate of weathering of rocks, the removal and redeposition of materials, and the decomposition of minerals and organic matter. It also affects biological activity in the soils and the leaching and movement of weathered materials.

The soils in Whitfield County and in the western two-thirds of Murray County formed under a thermic temperature regime; that is, the mean soil temperature at a depth of about 20 inches is 59 to 72 degrees F. The soils in the eastern third of Murray County formed under a mesic temperature regime in which the mean soil temperature at a depth of about 20 inches is 46 to 59 degrees F. The rate of chemical reactions and other processes in the soil depends to some extent on temperature. In addition, temperature affects the type and quantity of vegetation, the amount and kind of organic matter, and the rate at which the organic matter decomposes. Soils in the cooler areas on north-facing slopes, such as the Cheoah soils, generally have a higher content of organic matter than soils in the warmer areas on south-facing slopes, such as the Edneytown and Pigeonroost soils.

Relief

Relief is the elevations, or inequalities, of the land surface considered collectively. The color of the soil, the degree of wetness, the thickness of the A horizon, the content of organic matter, and the plant cover are commonly related to relief. In Murray and Whitfield Counties, the most obvious effects of relief are those that relate to the color of the soil and the degree of wetness.

Fullerton and Dewey soils have a mainly reddish subsoil, whereas the subsoil of Chenneby soils is mottled primarily in shades of brown and gray. This difference in color results from a difference in relief and a corresponding difference in internal drainage. Fullerton and Dewey soils are in the higher positions on the landscape and are better drained than other soils; therefore, the soil material is better oxidized and the subsoil is reddish.

Time

The length of time that the soil-forming processes have acted on the parent material helps to determine the characteristics of the soil. Determinations of when soil formation began in the survey area are not exact. Most of the soils are considered mature. Mature soils are in equilibrium with the environment. They are characterized by readily recognizable pedogenic horizons and a regular decrease in content of carbon with increasing depth. Some areas of upland soils are on rather broad, stable landscapes where the soil-forming processes have been active for thousands of years. These mature soils have a highly weathered solum and a well expressed zone of illuviation.

Chenneby soils receive sediment annually from floodwater. These soils are characterized by an irregular decrease in content of carbon with increasing depth. These young soils are not as highly developed as older terrace soils or upland soils that have been exposed to soil-forming process for a longer period of time.

Processes of Horizon Differentiation

The results of the soil-forming processes are evidenced by the different layers, or soil horizons, in a profile. The soil profile extends from the surface down to materials that are little altered by the soil-forming processes.

Most soils have three major horizons—the A, B, and C horizons. Some soils, particularly those in forests, also have an O (organic) horizon at the surface. This horizon is an accumulation of organic material, such as twigs and leaves, or of humified organic material that has little admixture of mineral material. The major horizons can be subdivided to indicate differences within the horizon. For example, the Bt horizon has an accumulation of clay from overlying horizons and represents the best developed part of a B horizon. Nella soils, for example, have a Bt horizon.

The A horizon is a mineral surface layer. It commonly is darkened by humified organic matter. An Ap horizon is a plow layer commonly darkened by organic matter. The maximum extent of leaching or eluviation of clay and iron occurs in the A horizon. If uneroded or plowed and mixed with material from lower horizons, the A horizon commonly has a granular structure. In an E horizon, considerable leaching has occurred and organic matter has not darkened the soil material. The E horizon, where it occurs, commonly is the lightest colored horizon in the profile and is most likely between the A and B horizons.

The B horizon commonly underlies the A horizon and is called the subsoil. The maximum extent of accumulation, or illuviation, of clay, iron, aluminum, or other compounds leached from the surface layer occurs in this horizon. The B horizon commonly has a blocky structure. It generally is firmer and lighter colored than the A horizon, but it is darker than the C or E horizons.

The C horizon underlies the A and B horizons. It consists of materials that are little altered by the soil-forming processes, but it may be modified by weathering. The C horizon generally is presumed to be the parent material in which the A and B horizons above it have formed. Young soils, such as those that formed in recent alluvium or in manmade deposits of fill materials, may have a C horizon that extends nearly to the surface. In such cases, there may not be a B horizon.

The R layer is continuous, hard bedrock and generally is below the other horizons. It is commonly the parent rock in which the overlying layer or horizon was formed.

One or more soil-forming processes are involved in the formation of soil horizons. These processes are the accumulation of organic matter; the chemical weathering, mainly by hydrolysis, of primary minerals into silicate clay minerals; the translocation of silicate clay and some silt-sized particles from one horizon to another; and the reduction and transfer of iron.

These processes have been active in the formation of most of the soils in Murray and Whitfield Counties. The interaction of the first three processes is indicated by the strongly expressed horizons in Fullerton and Waynesboro soils. All four processes have probably been active in the formation of the moderately well drained Shack and Conasauga soils.

Some organic matter has accumulated in all of the soils in the survey area. Most of the soils contain moderate amounts of organic matter in the surface layer. The content of organic matter ranges from low, as in Panama soils, to high, as in Cheoah soils.

Most of the soils in the survey area are acid in the upper layers, unless the surface layer has been limed, because the bases released during the weathering of the soil and saprolite have been leached.

The translocation of clay minerals is an important process in the development of many soils in the survey area. As clay minerals are removed from the A horizon, they accumulate as clay films on the faces of peds, in pores, and in root channels in the B horizon.

As silicate clay forms from primary minerals, some iron is commonly released as hydrated oxides. These oxides are generally red. Even if they occur in small amounts, they give the soil material a reddish or brownish color. These colors are best expressed in the subsoil.

The reduction and transfer of iron has occurred in all of the soils that are not characterized by good natural drainage. This process, known as gleying, is evidenced by a gray matrix color and by iron or clay depletions. Some of the iron may be reoxidized and segregated and thus form yellow, brown, red, or other brightly colored masses of iron accumulation in an essentially gray matrix in the subsoil. Nodules or concretions of iron ore or manganese also commonly form as a result of this process. Soil features associated with chemically reduced iron are referred to as redoximorphic features (Vepraskas, 1992).

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Glossary

Many of the terms relating to landforms, geology, and geomorphology are defined in more detail in the “National Soil Survey Handbook” (available in local offices of the Natural Resources Conservation Service or on the Internet).

Aeration, soil. The exchange of air in soil with air from the atmosphere. The air in a well aerated soil is similar to that in the atmosphere; the air in a poorly aerated soil is considerably higher in carbon dioxide and lower in oxygen.

Aggregate, soil. Many fine particles held in a single mass or cluster. Natural soil aggregates, such as granules, blocks, or prisms, are called peds. Clods are aggregates produced by tillage or logging.

Alluvium. Unconsolidated material, such as gravel, sand, silt, clay, and various mixtures of these, deposited on land by running water.

Animal unit month (AUM). The amount of forage required by one mature cow of approximately 1,000 pounds weight, with or without a calf, for 1 month.

Aquic conditions. Current soil wetness characterized by saturation, reduction, and redoximorphic features.

Argillic horizon. A subsoil horizon characterized by an accumulation of illuvial clay.

Aspect. The direction toward which a slope faces. Also called slope aspect.

Association, soil. A group of soils or miscellaneous areas geographically associated in a characteristic repeating pattern and defined and delineated as a single map unit.

Available water capacity (available moisture capacity). The capacity of soils to hold water available for use by most plants. It is commonly defined as the difference between the amount of soil water at field moisture capacity and the amount at wilting point. It is commonly expressed as inches of water per inch of soil. The capacity, in inches, in a 60-inch profile or to a limiting layer is expressed as:

Very low	0 to 3
Low	3 to 6
Moderate	6 to 9
High	9 to 12
Very high	more than 12

Backslope. The position that forms the steepest and generally linear, middle portion of a hillslope. In profile, backslopes are commonly bounded by a convex shoulder above and a concave footslope below.

Base saturation. The degree to which material having cation-exchange properties is saturated with exchangeable bases (sum of Ca, Mg, Na, and K), expressed as a percentage of the total cation-exchange capacity.

Bedrock. The solid rock that underlies the soil and other unconsolidated material or that is exposed at the surface.

Bottom land. An informal term loosely applied to various portions of a flood plain.

Boulders. Rock fragments larger than 2 feet (60 centimeters) in diameter.

Breast height. An average height of 4.5 feet above the ground surface; the point on a tree where diameter measurements are ordinarily taken.

Capillary water. Water held as a film around soil particles and in tiny spaces between particles. Surface tension is the adhesive force that holds capillary water in the soil.

Cation. An ion carrying a positive charge of electricity. The common soil cations are calcium, potassium, magnesium, sodium, and hydrogen.

Cation-exchange capacity. The total amount of exchangeable cations that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. The term, as applied to soils, is synonymous with base-exchange capacity but is more precise in meaning.

Channery soil material. Soil material that has, by volume, 15 to 35 percent thin, flat fragments of sandstone, shale, slate, limestone, or schist as much as 6 inches (15 centimeters) along the longest axis. A single piece is called a channer.

Clay. As a soil separate, the mineral soil particles less than 0.002 millimeter in diameter. As a soil textural class, soil material that is 40 percent or more clay, less than 45 percent sand, and less than 40 percent silt.

Clay depletions. See Redoximorphic features.

Clay film. A thin coating of oriented clay on the surface of a soil aggregate or lining pores or root channels. Synonyms: clay coating, clay skin.

Climax plant community. The stabilized plant community on a particular site. The plant cover reproduces itself and does not change so long as the environment remains the same.

Coarse textured soil. Sand or loamy sand.

Cobble (or cobblestone). A rounded or partly rounded fragment of rock 3 to 10 inches (7.6 to 25 centimeters) in diameter.

Cobbly soil material. Material that has 15 to 35 percent, by volume, rounded or partially rounded rock fragments 3 to 10 inches (7.6 to 25 centimeters) in diameter. Very cobbly soil material has 35 to 60 percent of these rock fragments, and extremely cobbly soil material has more than 60 percent.

COLE (coefficient of linear extensibility). See Linear extensibility.

Colluvium. Unconsolidated, unsorted earth material being transported or deposited on side slopes and/or at the base of slopes by mass movement (e.g., direct gravitational action) and by local, unconcentrated runoff.

Complex slope. Irregular or variable slope. Planning or establishing terraces, diversions, and other water-control structures on a complex slope is difficult.

Complex, soil. A map unit of two or more kinds of soil or miscellaneous areas in such an intricate pattern or so small in area that it is not practical to map them separately at the selected scale of mapping. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas.

Concretions. See Redoximorphic features.

Conglomerate. A coarse grained, clastic sedimentary rock composed of rounded or subangular rock fragments more than 2 millimeters in diameter. It commonly has a matrix of sand and finer textured material. Conglomerate is the consolidated equivalent of gravel.

Conservation tillage. A tillage system that does not invert the soil and that leaves a protective amount of crop residue on the surface throughout the year.

Consistence, soil. Refers to the degree of cohesion and adhesion of soil material and its resistance to deformation when ruptured. Consistence includes resistance of soil material to rupture and to penetration; plasticity, toughness, and stickiness of puddled soil material; and the manner in which the soil material behaves when subject to compression. Terms describing consistence are defined in the “Soil Survey Manual.”

Contour stripcropping. Growing crops in strips that follow the contour. Strips of grass or close-growing crops are alternated with strips of clean-tilled crops or summer fallow.

Control section. The part of the soil on which classification is based. The thickness varies among different kinds of soil, but for many it is that part of the soil profile between depths of 10 inches and 40 or 80 inches.

Corrosion (geomorphology). A process of erosion whereby rocks and soil are removed or worn away by natural chemical processes, especially by the solvent action of running water, but also by other reactions, such as hydrolysis, hydration, carbonation, and oxidation.

Corrosion (soil survey interpretations). Soil-induced electrochemical or chemical action that dissolves or weakens concrete or uncoated steel.

Cover crop. A close-growing crop grown primarily to improve and protect the soil between periods of regular crop production, or a crop grown between trees and vines in orchards and vineyards.

Crop residue management. Returning crop residue to the soil, which helps to maintain soil structure, organic matter content, and fertility and helps to control erosion.

Culmination of the mean annual increment (CMAI). The average annual increase per acre in the volume of a stand. Computed by dividing the total volume of the stand by its age. As the stand increases in age, the mean annual increment continues to increase until mortality begins to reduce the rate of increase. The point where the stand reaches its maximum annual rate of growth is called the culmination of the mean annual increment.

Cutbanks cave (in tables). The walls of excavations tend to cave in or slough.

Decreasers. The most heavily grazed climax range plants. Because they are the most palatable, they are the first to be destroyed by overgrazing.

Deferred grazing. Postponing grazing or resting grazing land for a prescribed period.

Dense layer (in tables). A very firm, massive layer that has a bulk density of more than 1.8 grams per cubic centimeter. Such a layer affects the ease of digging and can affect filling and compacting.

Depth, soil. Generally, the thickness of the soil over bedrock. Very deep soils are more than 60 inches deep over bedrock; deep soils, 40 to 60 inches; moderately deep, 20 to 40 inches; shallow, 10 to 20 inches; and very shallow, less than 10 inches.

Drainage class (natural). Refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized—*excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained,* and *very poorly drained*. These classes are defined in the “Soil Survey Manual.”

Drainage, surface. Runoff, or surface flow of water, from an area.

Drainageway. A general term for a course or channel along which water moves in draining an area. A term restricted to relatively small, linear depressions that at some time move concentrated water and either do not have a defined channel or have only a small defined channel.

Eluviation. The movement of material in true solution or colloidal suspension from one place to another within the soil. Soil horizons that have lost material through eluviation are eluvial; those that have received material are illuvial.

Erosion. The wearing away of the land surface by water, wind, ice, or other geologic agents and by such processes as gravitational creep.

Erosion (geologic). Erosion caused by geologic processes acting over long geologic periods and resulting in the wearing away of mountains and the building up of such landscape features as flood plains and coastal plains. Synonym: natural erosion.

Erosion (accelerated). Erosion much more rapid than geologic erosion, mainly as a result of human or animal activities or of a catastrophe in nature, such as a fire, that exposes the surface.

Fertility, soil. The quality that enables a soil to provide plant nutrients, in adequate amounts and in proper balance, for the growth of specified plants when light, moisture, temperature, tilth, and other growth factors are favorable.

Field moisture capacity. The moisture content of a soil, expressed as a percentage of the ovendry weight, after the gravitational, or free, water has drained away; the field moisture content 2 or 3 days after a soaking rain; also called *normal field capacity, normal moisture capacity,* or *capillary capacity*.

Fill slope. A sloping surface consisting of excavated soil material from a road cut. It commonly is on the downhill side of the road.

Fine textured soil. Sandy clay, silty clay, or clay.

Flagstone. A thin fragment of sandstone, limestone, slate, shale, or (rarely) schist 6 to 15 inches (15 to 38 centimeters) long.

Flood plain. The nearly level plain that borders a stream and is subject to flooding unless protected artificially.

Flood-plain landforms. A variety of constructional and erosional features produced by stream channel migration and flooding. Examples include backswamps, flood-plain splays, meanders, meander belts, meander scrolls, oxbow lakes, and natural levees.

Footslope. The concave surface at the base of a hillslope. A footslope is a transition zone between upslope sites of erosion and transport (shoulders and backslopes) and downslope sites of deposition (toeslopes).

Forb. Any herbaceous plant not a grass or a sedge.

Forest cover. All trees and other woody plants (underbrush) covering the ground in a forest.

Forest type. A stand of trees similar in composition and development because of given physical and biological factors by which it may be differentiated from other stands.

Fragipan. A loamy, brittle subsurface horizon low in porosity and content of organic matter and low or moderate in clay but high in silt or very fine sand. A fragipan appears cemented and restricts roots. When dry, it is hard or very hard and has a higher bulk density than the horizon or horizons above. When moist, it tends to rupture suddenly under pressure rather than to deform slowly.

Genesis, soil. The mode of origin of the soil. Refers especially to the processes or soil-forming factors responsible for the formation of the solum, or true soil, from the unconsolidated parent material.

Gleyed soil. Soil that formed under poor drainage, resulting in the reduction of iron and other elements in the profile and in gray colors.

Grassed waterway. A natural or constructed waterway, typically broad and shallow, seeded to grass as protection against erosion. Conducts surface water away from cropland.

Gravel. Rounded or angular fragments of rock as much as 3 inches (2 millimeters to 7.6 centimeters) in diameter. An individual piece is a pebble.

Gravelly soil material. Material that has 15 to 35 percent, by volume, rounded or angular rock fragments, not prominently flattened, as much as 3 inches (7.6 centimeters) in diameter.

Ground water. Water filling all the unblocked pores of the material below the water table.

Gully. A small channel with steep sides caused by erosion and cut in unconsolidated materials by concentrated but intermittent flow of water. The distinction between a gully and a rill is one of depth. A gully generally is an obstacle to farm machinery

and is too deep to be obliterated by ordinary tillage; a rill is of lesser depth and can be smoothed over by ordinary tillage.

Hard bedrock. Bedrock that cannot be excavated except by blasting or by the use of special equipment that is not commonly used in construction.

Hard to reclaim (in tables). Reclamation is difficult after the removal of soil for construction and other uses. Revegetation and erosion control are extremely difficult.

Hill. A generic term for an elevated area of the land surface, rising as much as 1,000 feet above surrounding lowlands, commonly of limited summit area and having a well defined outline. Slopes are generally more than 15 percent. The distinction between a hill and a mountain is arbitrary and may depend on local usage.

Horizon, soil. A layer of soil, approximately parallel to the surface, having distinct characteristics produced by soil-forming processes. In the identification of soil horizons, an uppercase letter represents the major horizons. Numbers or lowercase letters that follow represent subdivisions of the major horizons. An explanation of the subdivisions is given in the “Soil Survey Manual.” The major horizons of mineral soil are as follows:

O horizon.—An organic layer of fresh and decaying plant residue.

A horizon.—The mineral horizon at or near the surface in which an accumulation of humified organic matter is mixed with the mineral material. Also, a plowed surface horizon, most of which was originally part of a B horizon.

E horizon.—The mineral horizon in which the main feature is loss of silicate clay, iron, aluminum, or some combination of these.

B horizon.—The mineral horizon below an A horizon. The B horizon is in part a layer of transition from the overlying A to the underlying C horizon. The B horizon also has distinctive characteristics, such as (1) accumulation of clay, sesquioxides, humus, or a combination of these; (2) prismatic or blocky structure; (3) redder or browner colors than those in the A horizon; or (4) a combination of these.

C horizon.—The mineral horizon or layer, excluding indurated bedrock, that is little affected by soil-forming processes and does not have the properties typical of the overlying soil material. The material of a C horizon may be either like or unlike that in which the solum formed. If the material is known to differ from that in the solum, an Arabic numeral, commonly a 2, precedes the letter C.

Cr horizon.—Soft, consolidated bedrock beneath the soil.

R layer.—Consolidated bedrock beneath the soil. The bedrock commonly underlies a C horizon, but it can be directly below an A or a B horizon.

Hydrologic soil groups. Refers to soils grouped according to their runoff potential. The soil properties that influence this potential are those that affect the minimum rate of water infiltration on a bare soil during periods after prolonged wetting when the soil is not frozen. These properties include depth to a seasonal high water table, the infiltration rate, and depth to a layer that significantly restricts the downward movement of water. The slope and the kind of plant cover are not considered but are separate factors in predicting runoff.

Igneous rock. Rock that was formed by cooling and solidification of magma and that has not been changed appreciably by weathering since its formation. Major varieties include plutonic and volcanic rock (e.g., andesite, basalt, and granite).

Illuviation. The movement of soil material from one horizon to another in the soil profile. Generally, material is removed from an upper horizon and deposited in a lower horizon.

Increasers. Species in the climax vegetation that increase in amount as the more desirable plants are reduced by close grazing. Increasers commonly are the shorter plants and the less palatable to livestock.

Infiltration. The downward entry of water into the immediate surface of soil or other material, as contrasted with percolation, which is movement of water through soil layers or material.

Infiltration capacity. The maximum rate at which water can infiltrate into a soil under a given set of conditions.

Infiltration rate. The rate at which water penetrates the surface of the soil at any given instant, usually expressed in inches per hour. The rate can be limited by the infiltration capacity of the soil or the rate at which water is applied at the surface.

Iron depletions. See Redoximorphic features.

Irrigation. Application of water to soils to assist in production of crops. Methods of irrigation are:

Basin.—Water is applied rapidly to nearly level plains surrounded by levees or dikes.

Border.—Water is applied at the upper end of a strip in which the lateral flow of water is controlled by small earth ridges called border dikes, or borders.

Controlled flooding.—Water is released at intervals from closely spaced field ditches and distributed uniformly over the field.

Corrugation.—Water is applied to small, closely spaced furrows or ditches in fields of close-growing crops or in orchards so that it flows in only one direction.

Drip (or trickle).—Water is applied slowly and under low pressure to the surface of the soil or into the soil through such applicators as emitters, porous tubing, or perforated pipe.

Furrow.—Water is applied in small ditches made by cultivation implements. Furrows are used for tree and row crops.

Sprinkler.—Water is sprayed over the soil surface through pipes or nozzles from a pressure system.

Subirrigation.—Water is applied in open ditches or tile lines until the water table is raised enough to wet the soil.

Wild flooding.—Water, released at high points, is allowed to flow onto an area without controlled distribution.

Ksat. See Saturated hydraulic conductivity.

Large stones (in tables). Rock fragments 3 inches (7.6 centimeters) or more across. Large stones adversely affect the specified use of the soil.

Leaching. The removal of soluble material from soil or other material by percolating water.

Linear extensibility. Refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. Linear extensibility is used to determine the shrink-swell potential of soils. It is an expression of the volume change between the water content of the clod at $^1/_3$- or $^1/_{10}$-bar tension (33kPa or 10kPa tension) and oven dryness. Volume change is influenced by the amount and type of clay minerals in the soil. The volume change is the percent change for the whole soil. If it is expressed as a fraction, the resulting value is COLE, coefficient of linear extensibility.

Liquid limit. The moisture content at which the soil passes from a plastic to a liquid state.

Loam. Soil material that is 7 to 27 percent clay particles, 28 to 50 percent silt particles, and less than 52 percent sand particles.

Low strength. The soil is not strong enough to support loads.

Masses. See Redoximorphic features.

Medium textured soil. Very fine sandy loam, loam, silt loam, or silt.

Metamorphic rock. Rock of any origin altered in mineralogical composition, chemical composition, or structure by heat, pressure, and movement at depth in the earth's crust. Nearly all such rocks are crystalline.

Mineral soil. Soil that is mainly mineral material and low in organic material. Its bulk density is more than that of organic soil.

Minimum tillage. Only the tillage essential to crop production and prevention of soil damage.

Miscellaneous area. A kind of map unit that has little or no natural soil and supports little or no vegetation.

Moderately coarse textured soil. Coarse sandy loam, sandy loam, or fine sandy loam.

Moderately fine textured soil. Clay loam, sandy clay loam, or silty clay loam.

Morphology, soil. The physical makeup of the soil, including the texture, structure, porosity, consistence, color, and other physical, mineral, and biological properties of the various horizons, and the thickness and arrangement of those horizons in the soil profile.

Mottling, soil. Irregular spots of different colors that vary in number and size. Descriptive terms are as follows: abundance—*few, common,* and *many;* size—*fine, medium,* and *coarse;* and contrast—*faint, distinct,* and *prominent*. The size measurements are of the diameter along the greatest dimension. *Fine* indicates less than 5 millimeters (about 0.2 inch); *medium,* from 5 to 15 millimeters (about 0.2 to 0.6 inch); and *coarse,* more than 15 millimeters (about 0.6 inch).

Mountain. A generic term for an elevated area of the land surface, rising more than 1,000 feet (300 meters) above surrounding lowlands, commonly of restricted summit area (relative to a plateau) and generally having steep sides. A mountain can occur as a single, isolated mass or in a group forming a chain or range. Mountains are formed primarily by tectonic activity and/or volcanic action but can also be formed by differential erosion.

Munsell notation. A designation of color by degrees of three simple variables—hue, value, and chroma. For example, a notation of 10YR 6/4 is a color with hue of 10YR, value of 6, and chroma of 4.

Neutral soil. A soil having a pH value of 6.6 to 7.3. (See Reaction, soil.)

Nodules. See Redoximorphic features.

Nutrient, plant. Any element taken in by a plant essential to its growth. Plant nutrients are mainly nitrogen, phosphorus, potassium, calcium, magnesium, sulfur, iron, manganese, copper, boron, and zinc obtained from the soil and carbon, hydrogen, and oxygen obtained from the air and water.

Organic matter. Plant and animal residue in the soil in various stages of decomposition. The content of organic matter in the surface layer is described as follows:

Very low	less than 0.5 percent
Low	0.5 to 1.0 percent
Moderately low	1.0 to 2.0 percent
Moderate	2.0 to 4.0 percent
High	4.0 to 8.0 percent
Very high	more than 8.0 percent

Parent material. The unconsolidated organic and mineral material in which soil forms.

Ped. An individual natural soil aggregate, such as a granule, a prism, or a block.

Pedon. The smallest volume that can be called “a soil.” A pedon is three dimensional and large enough to permit study of all horizons. Its area ranges from about 10 to 100 square feet (1 square meter to 10 square meters), depending on the variability of the soil.

Percolation. The movement of water through the soil.

Permeability. The quality of the soil that enables water or air to move downward through the profile. The rate at which a saturated soil transmits water is accepted as a measure of this quality. In soil physics, the rate is referred to as “saturated

hydraulic conductivity," which is defined in the "Soil Survey Manual." In line with conventional usage in the engineering profession and with traditional usage in published soil surveys, this rate of flow continues to be expressed as "permeability." Terms describing permeability, measured in inches per hour, are as follows:

Impermeable	less than 0.0015 inch
Very slow	0.0015 to 0.06 inch
Slow	0.06 to 0.2 inch
Moderately slow	0.2 to 0.6 inch
Moderate	0.6 inch to 2.0 inches
Moderately rapid	2.0 to 6.0 inches
Rapid	6.0 to 20 inches
Very rapid	more than 20 inches

pH value. A numerical designation of acidity and alkalinity in soil. (See Reaction, soil.)

Phase, soil. A subdivision of a soil series based on features that affect its use and management, such as slope, stoniness, and flooding.

Piping (in tables). Formation of subsurface tunnels or pipelike cavities by water moving through the soil.

Plastic limit. The moisture content at which a soil changes from semisolid to plastic.

Plasticity index. The numerical difference between the liquid limit and the plastic limit; the range of moisture content within which the soil remains plastic.

Ponding. Standing water on soils in closed depressions. Unless the soils are artificially drained, the water can be removed only by percolation or evapotranspiration.

Potential rooting depth (effective rooting depth). Depth to which roots could penetrate if the content of moisture in the soil were adequate. The soil has no properties restricting the penetration of roots to this depth.

Productivity, soil. The capability of a soil for producing a specified plant or sequence of plants under specific management.

Profile, soil. A vertical section of the soil extending through all its horizons and into the parent material.

Reaction, soil. A measure of acidity or alkalinity of a soil, expressed as pH values. A soil that tests to pH 7.0 is described as precisely neutral in reaction because it is neither acid nor alkaline. The degrees of acidity or alkalinity, expressed as pH values, are:

Ultra acid	less than 3.5
Extremely acid	3.5 to 4.4
Very strongly acid	4.5 to 5.0
Strongly acid	5.1 to 5.5
Moderately acid	5.6 to 6.0
Slightly acid	6.1 to 6.5
Neutral	6.6 to 7.3
Slightly alkaline	7.4 to 7.8
Moderately alkaline	7.9 to 8.4
Strongly alkaline	8.5 to 9.0
Very strongly alkaline	9.1 and higher

Redoximorphic concentrations. See Redoximorphic features.

Redoximorphic depletions. See Redoximorphic features.

Redoximorphic features. Redoximorphic features are associated with wetness and result from alternating periods of reduction and oxidation of iron and manganese compounds in the soil. Reduction occurs during saturation with water, and oxidation occurs when the soil is not saturated. Characteristic color patterns are

created by these processes. The reduced iron and manganese ions may be removed from a soil if vertical or lateral fluxes of water occur, in which case there is no iron or manganese precipitation in that soil. Wherever the iron and manganese are oxidized and precipitated, they form either soft masses or hard concretions or nodules. Movement of iron and manganese as a result of redoximorphic processes in a soil may result in redoximorphic features that are defined as follows:

1. Redoximorphic concentrations.—These are zones of apparent accumulation of iron-manganese oxides, including:

   A. Nodules and concretions, which are cemented bodies that can be removed from the soil intact. Concretions are distinguished from nodules on the basis of internal organization. A concretion typically has concentric layers that are visible to the naked eye. Nodules do not have visible organized internal structure; *and*

   B. Masses, which are noncemented concentrations of substances within the soil matrix; *and*

   C. Pore linings, i.e., zones of accumulation along pores that may be either coatings on pore surfaces or impregnations from the matrix adjacent to the pores.

2. Redoximorphic depletions.—These are zones of low chroma (chromas less than those in the matrix) where either iron-manganese oxides alone or both iron-manganese oxides and clay have been stripped out, including:

   A. Iron depletions, i.e., zones that contain low amounts of iron and manganese oxides but have a clay content similar to that of the adjacent matrix; *and*

   B. Clay depletions, i.e., zones that contain low amounts of iron, manganese, and clay (often referred to as silt coatings or skeletans).

3. Reduced matrix.—This is a soil matrix that has low chroma *in situ* but undergoes a change in hue or chroma within 30 minutes after the soil material has been exposed to air.

Reduced matrix. See Redoximorphic features.

Relief. The relative difference in elevation between the upland summits and the lowlands or valleys of a given region.

Residuum (residual soil material). Unconsolidated, weathered or partly weathered mineral material that accumulated as bedrock disintegrated in place.

Rock fragments. Rock or mineral fragments having a diameter of 2 millimeters or more; for example, pebbles, cobbles, stones, and boulders.

Root zone. The part of the soil that can be penetrated by plant roots.

Runoff. The precipitation discharged into stream channels from an area. The water that flows off the surface of the land without sinking into the soil is called surface runoff. Water that enters the soil before reaching surface streams is called ground-water runoff or seepage flow from ground water.

Sand. As a soil separate, individual rock or mineral fragments from 0.05 millimeter to 2.0 millimeters in diameter. Most sand grains consist of quartz. As a soil textural class, a soil that is 85 percent or more sand and not more than 10 percent clay.

Sandstone. Sedimentary rock containing dominantly sand-sized particles.

Saturated hydraulic conductivity (Ksat). The ease with which pores of a saturated soil transmit water. Formally, the proportionality coefficient that expresses the relationship of the rate of water movement to hydraulic gradient in Darcy's Law, a law that describes the rate of water movement through porous media. Commonly abbreviated as "Ksat." Terms describing saturated hydraulic conductivity are *very high*, 100 or more micrometers per second (14.17 or more inches per hour); *high*, 10 to 100 micrometers per second (1.417 to 14.17 inches per hour); *moderately high*, 1 to 10 micrometers per second (0.1417 inch to 1.417 inches per hour);

moderately low, 0.1 to 1 micrometer per second (0.01417 to 0.1417 inch per hour); *low*, 0.01 to 0.1 micrometer per second (0.001417 to 0.01417 inch per hour); and *very low*, less than 0.01 micrometer per second (less than 0.001417 inch per hour). To convert inches per hour to micrometers per second, multiply inches per hour by 7.0572. To convert micrometers per second to inches per hour, multiply micrometers per second by 0.1417.

Saturation. Wetness characterized by zero or positive pressure of the soil water. Under conditions of saturation, the water will flow from the soil matrix into an unlined auger hole.

Sedimentary rock. A consolidated deposit of clastic particles, chemical precipitates, or organic remains accumulated at or near the surface of the earth under normal low temperature and pressure conditions. Sedimentary rocks include consolidated equivalents of alluvium, colluvium, drift, and eolian, lacustrine, and marine deposits. Examples are sandstone, siltstone, mudstone, claystone, shale, conglomerate, limestone, dolomite, and coal.

Series, soil. A group of soils that have profiles that are almost alike, except for differences in texture of the surface layer. All the soils of a series have horizons that are similar in composition, thickness, and arrangement.

Shale. Sedimentary rock that formed by the hardening of a deposit of clay, silty clay, or silty clay loam and that has a tendency to split into thin layers.

Shoulder. The convex, erosional surface near the top of a hillslope. A shoulder is a transition from summit to backslope.

Shrink-swell (in tables). The shrinking of soil when dry and the swelling when wet. Shrinking and swelling can damage roads, dams, building foundations, and other structures. It can also damage plant roots.

Side slope (geomorphology). A geomorphic component of hills consisting of a laterally planar area of a hillside. The overland waterflow is predominantly parallel. Side slopes are dominantly colluvium and slope-wash sediments.

Silt. As a soil separate, individual mineral particles that range in diameter from the upper limit of clay (0.002 millimeter) to the lower limit of very fine sand (0.05 millimeter). As a soil textural class, soil that is 80 percent or more silt and less than 12 percent clay.

Siltstone. An indurated silt having the texture and composition of shale but lacking its fine lamination or fissility; a massive mudstone in which silt predominates over clay.

Similar soils. Soils that share limits of diagnostic criteria, behave and perform in a similar manner, and have similar conservation needs or management requirements for the major land uses in the survey area.

Sinkhole. A closed, circular or elliptical depression, commonly funnel shaped, characterized by subsurface drainage and formed either by dissolution of the surface of underlying bedrock (e.g., limestone, gypsum, or salt) or by collapse of underlying caves within bedrock. Complexes of sinkholes in carbonate-rock terrain are the main components of karst topography.

Site index. A designation of the quality of a forest site based on the height of the dominant stand at an arbitrarily chosen age. For example, if the average height attained by dominant and codominant trees in a fully stocked stand at the age of 50 years is 75 feet, the site index is 75.

Slope. The inclination of the land surface from the horizontal. Percentage of slope is the vertical distance divided by horizontal distance, then multiplied by 100. Thus, a slope of 20 percent is a drop of 20 feet in 100 feet of horizontal distance. In this survey, classes for simple slopes are as follows:

Nearly level	0 to 2 percent
Gently sloping	2 to 6 percent
Strongly sloping	6 to 15 percent

Moderately steep	15 to 30 percent
Steep	30 to 45 percent
Very steep	45 percent and higher

Slow refill (in tables). The slow filling of ponds, resulting from restricted water transmission in the soil.

Slow water movement (in tables). Restricted downward movement of water through the soil. See Saturated hydraulic conductivity.

Sodium adsorption ratio (SAR). A measure of the amount of sodium (Na) relative to calcium (Ca) and magnesium (Mg) in the water extract from saturated soil paste. It is the ratio of the Na concentration divided by the square root of one-half of the Ca + Mg concentration.

Soft bedrock. Bedrock that can be excavated with trenching machines, backhoes, small rippers, and other equipment commonly used in construction.

Soil. A natural, three-dimensional body at the earth's surface. It is capable of supporting plants and has properties resulting from the integrated effect of climate and living matter acting on earthy parent material, as conditioned by relief and by the passage of time.

Soil separates. Mineral particles less than 2 millimeters in equivalent diameter and ranging between specified size limits. The names and sizes, in millimeters, of separates recognized in the United States are as follows:

Very coarse sand	2.0 to 1.0
Coarse sand	1.0 to 0.5
Medium sand	0.5 to 0.25
Fine sand	0.25 to 0.10
Very fine sand	0.10 to 0.05
Silt	0.05 to 0.002
Clay	less than 0.002

Solum. The upper part of a soil profile, above the C horizon, in which the processes of soil formation are active. The solum in soil consists of the A, E, and B horizons. Generally, the characteristics of the material in these horizons are unlike those of the material below the solum. The living roots and plant and animal activities are largely confined to the solum.

Stones. Rock fragments 10 to 24 inches (25 to 60 centimeters) in diameter if rounded or 15 to 24 inches (38 to 60 centimeters) in length if flat.

Stony. Refers to a soil containing stones in numbers that interfere with or prevent tillage.

Stream terrace. One of a series of platforms in a stream valley, flanking and more or less parallel to the stream channel, originally formed near the level of the stream; represents the remnants of an abandoned flood plain, stream bed, or valley floor produced during a former state of fluvial erosion or deposition.

Stripcropping. Growing crops in a systematic arrangement of strips or bands that provide vegetative barriers to wind erosion and water erosion.

Structure, soil. The arrangement of primary soil particles into compound particles or aggregates. The principal forms of soil structure are—*platy* (laminated), *prismatic* (vertical axis of aggregates longer than horizontal), *columnar* (prisms with rounded tops), *blocky* (angular or subangular), and *granular*. *Structureless* soils are either *single grained* (each grain by itself, as in dune sand) or *massive* (the particles adhering without any regular cleavage, as in many hardpans).

Subsoil. Technically, the B horizon; roughly, the part of the solum below plow depth.

Substratum. The part of the soil below the solum.

Subsurface layer. Any surface soil horizon (A, E, AB, or EB) below the surface layer.

Summit. The topographically highest position of a hillslope. It has a nearly level (planar or only slightly convex) surface.

Surface layer. The soil ordinarily moved in tillage, or its equivalent in uncultivated soil, ranging in depth from 4 to 10 inches (10 to 25 centimeters). Frequently designated as the "plow layer," or the "Ap horizon."

Surface soil. The A, E, AB, and EB horizons, considered collectively. It includes all subdivisions of these horizons.

Taxadjuncts. Soils that cannot be classified in a series recognized in the classification system. Such soils are named for a series they strongly resemble and are designated as taxadjuncts to that series because they differ in ways too small to be of consequence in interpreting their use and behavior. Soils are recognized as taxadjuncts only when one or more of their characteristics are slightly outside the range defined for the family of the series for which the soils are named.

Terrace (conservation). An embankment, or ridge, constructed across sloping soils on the contour or at a slight angle to the contour. The terrace intercepts surface runoff so that water soaks into the soil or flows slowly to a prepared outlet. A terrace in a field generally is built so that the field can be farmed. A terrace intended mainly for drainage has a deep channel that is maintained in permanent sod.

Terrace (geomorphology). A steplike surface, bordering a valley floor or shoreline, that represents the former position of a flood plain, lake, or seashore. The term is usually applied both to the relatively flat summit surface (tread) that was cut or built by stream or wave action and to the steeper descending slope (scarp or riser) that has graded to a lower base level of erosion.

Texture, soil. The relative proportions of sand, silt, and clay particles in a mass of soil. The basic textural classes, in order of increasing proportion of fine particles, are *sand, loamy sand, sandy loam, loam, silt loam, silt, sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay,* and *clay*. The sand, loamy sand, and sandy loam classes may be further divided by specifying "coarse," "fine," or "very fine."

Thin layer (in tables). Otherwise suitable soil material that is too thin for the specified use.

Till. Dominantly unsorted and nonstratified drift, generally unconsolidated and deposited directly by a glacier without subsequent reworking by meltwater, and consisting of a heterogeneous mixture of clay, silt, sand, gravel, stones, and boulders; rock fragments of various lithologies are embedded within a finer matrix that can range from clay to sandy loam.

Till plain. An extensive area of level to gently undulating soils underlain predominantly by till and bounded at the distal end by subordinate recessional or end moraines.

Tilth, soil. The physical condition of the soil as related to tillage, seedbed preparation, seedling emergence, and root penetration.

Toeslope. The gently inclined surface at the base of a hillslope. Toeslopes in profile are commonly gentle and linear and are constructional surfaces forming the lower part of a hillslope continuum that grades to valley or closed-depression floors.

Topsoil. The upper part of the soil, which is the most favorable material for plant growth. It is ordinarily rich in organic matter and is used to topdress roadbanks, lawns, and land affected by mining.

Upland. An informal, general term for the higher ground of a region, in contrast with a low-lying adjacent area, such as a valley or plain, or for land at a higher elevation than the flood plain or low stream terrace; land above the footslope zone of the hillslope continuum.

Valley fill. The unconsolidated sediment deposited by any agent (water, wind, ice, or mass wasting) so as to fill or partly fill a valley.

Variegation. Refers to patterns of contrasting colors assumed to be inherited from the parent material rather than to be the result of poor drainage.

Water bars. Smooth, shallow ditches or depressional areas that are excavated at an angle across a sloping road. They are used to reduce the downward velocity of

water and divert it off and away from the road surface. Water bars can easily be driven over if constructed properly.

Weathering. All physical disintegration, chemical decomposition, and biologically induced changes in rocks or other deposits at or near the earth's surface by atmospheric or biologic agents or by circulating surface waters but involving essentially no transport of the altered material.

Wilting point (or permanent wilting point). The moisture content of soil, on an ovendry basis, at which a plant (specifically a sunflower) wilts so much that it does not recover when placed in a humid, dark chamber.

Windthrow. The uprooting and tipping over of trees by the wind.

Tables

Temperature and Precipitation

(Recorded in the period 1971-2000 at Dalton, Georgia)

Month	Temperature: Average daily maximum	Temperature: Average daily minimum	Temperature: Average	Temperature: 2 years in 10 will have-- Maximum temperature higher than	Temperature: 2 years in 10 will have-- Minimum temperature lower than	Temperature: Average number of growing degree days*	Precipitation: Average	Precipitation: 2 years in 10 will have-- Less than--	Precipitation: 2 years in 10 will have-- More than--	Precipitation: Average number of days with 0.10 inch or more	Precipitation: Average snowfall
	°F	°F	°F	°F	°F	Units	In	In	In		In
January-----	49.4	29.4	39.4	71	5	19	5.72	3.70	7.90	8	0.5
February----	54.0	32.1	43.1	76	11	40	5.01	2.80	7.32	7	0.8
March-------	62.8	38.9	50.8	83	18	129	6.13	3.51	8.44	8	0.7
April-------	71.9	46.2	59.0	89	29	291	4.30	2.40	6.18	6	0.1
May---------	79.3	55.5	67.4	91	39	537	4.28	2.43	5.94	6	0.0
June--------	86.0	63.7	74.9	96	48	745	4.36	2.22	6.53	7	0.0
July--------	89.2	68.2	78.7	99	58	879	4.92	3.20	6.57	7	0.0
August------	88.5	67.2	77.8	98	57	853	3.76	2.18	5.38	6	0.0
September---	83.1	61.1	72.1	95	43	654	4.90	2.18	7.16	6	0.0
October-----	73.0	47.5	60.3	86	30	325	3.27	1.20	5.32	4	0.0
November----	62.5	39.6	51.0	80	22	124	4.73	3.10	6.14	6	0.0
December----	53.0	32.9	43.0	73	11	40	5.04	2.78	7.25	7	0.1
Yearly:											
Average---	71.1	48.5	59.8	---	---	---	---	---	---	---	---
Extreme---	103	-10	---	100	3	---	---	---	---	---	---
Total-----	---	---	---	---	---	4634	56.44	46.59	62.22	78	2.2

Average # of days per year with at least 1 inch of snow on the ground: 0

*A growing degree day is a unit of heat available for plant growth. It can be calculated by adding the maximum and minimum daily temperatures, dividing the sum by 2, and subtracting the temperature below which growth is minimal for the principal crops in the area (Threshold: 50.0 deg. F)

Freeze Dates in Spring and Fall

(Recorded in the period 1971-2000 at Dalton, Georgia)

Probability	Temperature		
	24 °F or lower	28 °F or lower	32 °F or lower
Last freezing temperature in spring:			
1 year in 10 later than--	Mar. 17	Apr. 7	Apr. 14
2 year in 10 later than--	Mar. 10	Mar. 31	Apr. 9
5 year in 10 later than--	Feb. 27	Mar. 17	Mar. 30
First freezing temperature in fall:			
1 yr in 10 earlier than--	Nov. 11	Oct. 26	Oct. 14
2 yr in 10 earlier than--	Nov. 17	Nov. 2	Oct. 20
5 yr in 10 earlier than--	Nov. 30	Nov. 13	Nov. 1

Growing Season

(Recorded for the period 1971-2000 at Dalton, GA)

Probability	Daily minimum temperature during growing season		
	Higher than 24 °F	Higher than 28 °F	Higher than 32 °F
	Days	Days	Days
9 years in 10	257	213	192
8 years in 10	265	223	201
5 years in 10	280	241	217
2 years in 10	295	260	234
1 year in 10	302	269	242

Acreage and Proportionate Extent of the Soils

Map symbol	Soil name	Murray County	Whitfield County	Total Area	Total Extent
		Acres	Acres	Acres	Pct
AbB	Albertville silt loam, 2 to 6 percent slopes	390	885	1,275	0.3
AbD	Albertville silt loam, 6 to 15 percent slopes	445	885	1,330	0.3
AnB	Allen loam, 2 to 6 percent slopes	150	230	380	*
AnD	Allen loam, 6 to 15 percent slopes	900	1,525	2,425	0.6
AnE	Allen loam, 15 to 30 percent slopes	320	320	640	0.2
ArC	Allen-Urban land complex, 2 to 15 percent slopes	245	760	1,005	0.2
ArE	Allen-Urban land complex, 15 to 30 percent slopes	---	150	150	*
AuA	Arkabutla silt loam, 0 to 2 percent slopes, occasionally flooded	5,730	4,995	10,725	2.6
BoD	Bodine very gravelly silt loam, 6 to 15 percent slopes	---	245	245	*
BoE	Bodine very gravelly silt loam, 15 to 30 percent slopes	---	1,290	1,290	0.3
BoF	Bodine very gravelly silt loam, 30 to 60 percent slopes	---	2,855	2,855	0.7
CaA	Capshaw silt loam, 0 to 2 percent slopes	1,190	600	1,790	0.4
CaB	Capshaw silt loam, 2 to 6 percent slopes	710	500	1,210	0.3
CkE	Cataska channery silt loam, 5 to 25 percent slopes	225	---	225	*
CkF	Cataska channery silt loam, 25 to 45 percent slopes	980	---	980	0.2
CkG	Cataska channery silt loam, 45 to 70 percent slopes	13,105	---	13,105	3.2
CnA	Chenneby silt loam, 0 to 2 percent slopes, occasionally flooded	6,925	6,990	13,915	3.4
CoA	Chenneby-Urban land complex, 0 to 2 percent slopes, occasionally flooded	65	790	855	0.2
CrE	Cheoah-Edneytown complex, 15 to 35 percent slopes	1,235	---	1,235	0.3
CsC	Conasauga silt loam, 6 to 10 percent slopes	3,130	4,290	7,420	1.8
CuC	Conasauga-Urban land complex, 2 to 10 percent slopes	165	1,700	1,865	0.5
CvB	Craigsville gravelly sandy loam, 0 to 5 percent slopes, occasionally flooded	585	445	1,030	0.3
CxB	Cunningham silt loam, 2 to 6 percent slopes	445	930	1,375	0.3
CxD	Cunningham silt loam, 6 to 15 percent slopes	2,440	2,000	4,440	1.1
CxE	Cunningham silt loam, 15 to 30 percent slopes	505	325	830	0.2
CxF	Cunningham silt loam, 30 to 60 percent slopes	---	650	650	0.2
DeB	Dewey silt loam, 2 to 6 percent slopes	1,190	410	1,600	0.4
DeD	Dewey silt loam, 6 to 15 percent slopes	70	340	410	0.1
DoA	Docena silt loam, 0 to 2 percent slopes, occasionally flooded	2,685	610	3,295	0.8
DsB	Docena-Conasauga complex, 2 to 6 percent slopes	7,385	11,625	19,010	4.7
Du	Dumps, sediment basins	35	45	80	*
EdF	Edneytown loam, 25 to 45 percent slopes, rubbly	1,535	---	1,535	0.4
EdG	Edneytown loam, 45 to 70 percent slopes, rubbly	4,855	---	4,855	1.2
EnB	Enders silt loam, 2 to 6 percent slopes	---	645	645	0.2
EnD	Enders silt loam, 6 to 15 percent slopes	170	1,985	2,155	0.5
EuC	Enders-Urban land complex, 2 to 15 percent slopes	---	360	360	*
FtB	Fullerton gravelly silt loam, 2 to 6 percent slopes	775	740	1,515	0.4
FtD	Fullerton gravelly silt loam, 6 to 15 percent slopes	3,040	4,815	7,855	1.9
FtE	Fullerton gravelly silt loam, 15 to 30 percent slopes	375	2,160	2,535	0.6

See footnote at end of table.

Acreage and Proportionate Extent of the Soils—Continued

Map symbol	Soil name	Murray County	Whitfield County	Total Area	Total Extent
		Acres	Acres	Acres	Pct
FtF	Fullerton gravelly silt loam, 30 to 60 percent slopes	20	590	610	0.1
FuE	Fullerton-Urban land complex, 15 to 30 percent slopes	---	1,560	1,560	0.4
GrA	Guthrie silt loam, 0 to 2 percent slopes, occasionally flooded	75	915	990	0.2
HcB	Hanceville loam, 2 to 6 percent slopes	165	310	475	0.1
HcD	Hanceville loam, 6 to 15 percent slopes	435	745	1,180	0.3
HcE	Hanceville loam, 15 to 30 percent slopes	110	155	265	*
HnC	Hanceville-Urban land complex, 2 to 15 percent slopes	5	500	505	0.1
HrF	Hector-Townley-Rock outcrop complex, 5 to 35 percent slopes	180	1,195	1,375	0.3
HsB	Holston fine sandy loam, 2 to 6 percent slopes	2,800	1,780	4,580	1.1
HsD	Holston fine sandy loam, 6 to 15 percent slopes	1,015	1,090	2,105	0.5
JfF	Jefferson gravelly sandy loam, 25 to 45 percent slopes	185	---	185	*
JfG	Jefferson gravelly sandy loam, 45 to 70 percent slopes, very stony	1,140	---	1,140	0.3
JsE	Junaluska loam, 5 to 25 percent slopes	5,725	---	5,725	1.4
JsF	Junaluska loam, 25 to 45 percent slopes	7,665	---	7,665	1.9
JsG	Junaluska loam, 45 to 70 percent slopes	9,400	---	9,400	2.3
JtE	Junaluska-Tsali complex, 5 to 25 percent slopes	6,530	---	6,530	1.6
JtF	Junaluska-Tsali complex, 25 to 45 percent slopes	9,480	---	9,480	2.3
KtA	Ketona silt loam, 0 to 2 percent slopes, occasionally flooded	3,695	2,200	5,895	1.4
LyE	Lily fine sandy loam, 5 to 25 percent slopes, rubbly	670	---	670	0.2
MnC	Minvale-Urban land complex, 2 to 15 percent slopes	210	1,390	1,600	0.4
MoF	Montevallo very channery loam, 30 to 60 percent slopes	8,550	3,130	11,680	2.9
MtD	Montevallo-Townley complex, 6 to 15 percent slopes	23,135	12,770	35,905	8.8
MtE	Montevallo-Townley complex, 15 to 30 percent slopes	14,215	10,985	25,200	6.2
MuE	Montevallo-Urban land complex, 10 to 25 percent slopes	85	375	460	0.1
NaD	Nauvoo fine sandy loam, 6 to 15 percent slopes	480	275	755	0.2
NaE	Nauvoo fine sandy loam, 15 to 35 percent slopes	675	470	1,145	0.3
NeB	Nella gravelly fine sandy loam, 2 to 6 percent slopes	---	740	740	0.2
NeD	Nella gravelly fine sandy loam, 6 to 15 percent slopes	135	1,075	1,210	0.3
NeE	Nella gravelly fine sandy loam, 15 to 30 percent slopes	80	1,955	2,035	0.5
NeF	Nella gravelly fine sandy loam, 30 to 60 percent slopes	---	2,490	2,490	0.6
NOTCOM	Not Complete (Cohutta Wilderness Area)	5,270	---	5,270	1.3
NtF	Nella-Hector-Townley complex, 30 to 60 percent slopes, rubbly	---	1,680	1,680	0.4
PaE	Panama very gravelly fine sandy loam, 15 to 30 percent slopes	150	1,005	1,155	0.3
PaF	Panama very gravelly fine sandy loam, 30 to 60 percent slopes	70	1,665	1,735	0.4

See footnote at end of table.

Acreage and Proportionate Extent of the Soils—Continued

Map symbol	Soil name	Murray County	Whitfield County	Total Area	Total Extent
		Acres	Acres	Acres	Pct
PcD	Pigeonroost-Cheoah complex, 5 to 15 percent slopes	515	---	515	0.1
Qu	Pits, quarries	100	310	410	0.1
Rk	Rock outcrop	35	40	75	*
SaA	Sequatchie loam, 0 to 2 percent slopes, occasionally flooded	1,755	785	2,540	0.6
SaB	Sequatchie loam, 2 to 6 percent slopes	1,600	635	2,235	0.5
ScB	Shack gravelly silt loam, 2 to 6 percent slopes	1,155	3,365	4,520	1.1
SdD	Shack-Minvale-Bodine complex, 6 to 15 percent slopes	3,025	20,880	23,905	5.9
SdE	Shack-Minvale-Bodine complex, 15 to 30 percent slopes	550	11,805	12,355	3.0
SeA	Shellbluff silt loam, 0 to 2 percent slopes, occasionally flooded	4,425	1,935	6,360	1.6
ShC	Shelocta channery loam, 2 to 15 percent slopes	90	---	90	*
SpD	Sipsey fine sandy loam, 4 to 15 percent slopes	1,085	200	1,285	0.3
SpE	Sipsey fine sandy loam, 15 to 30 percent slopes	245	135	380	*
SuB	Subligna extremely gravelly sandy loam, 0 to 5 percent slopes, occasionally flooded	670	505	1,175	0.3
SxA	Suches loam, 0 to 2 percent slopes, occasionally flooded	385	---	385	*
TnB	Townley silt loam, 2 to 6 percent slopes	715	1,145	1,860	0.5
TnD	Townley silt loam, 6 to 15 percent slopes	8,360	13,455	21,815	5.3
TnE	Townley silt loam, 15 to 30 percent slopes	1,985	3,670	5,655	1.4
TnF	Townley silt loam, 30 to 45 percent slopes	705	3,300	4,005	1.0
TrC	Townley-Urban land complex, 2 to 15 percent slopes	735	2,990	3,725	0.9
TsE	Tsali channery loam, 5 to 25 percent slopes	745	---	745	0.2
TsF	Tsali channery loam, 25 to 45 percent slopes	7,395	---	7,395	1.8
TsG	Tsali channery loam, 45 to 70 percent slopes	2,330	---	2,330	0.6
Uc	Ultic Udarents, channery	490	1,320	1,810	0.4
Ug	Ultic Udarents, gravelly	235	610	845	0.2
UrC	Urban land, 2 to 10 percent slopes	65	1,545	1,610	0.4
W	Water	2,275	1,780	4,055	1.0
WaA	Wax fine sandy loam, 0 to 2 percent slopes, occasionally flooded	495	1,740	2,235	0.5
WaB	Wax fine sandy loam, 2 to 6 percent slopes, rarely flooded	850	2,930	3,780	0.9
WnB	Waynesboro sandy loam, 2 to 6 percent slopes	3,700	10	3,710	0.9
WnD	Waynesboro sandy loam, 6 to 15 percent slopes	6,955	580	7,535	1.8
WsC	Waynesboro-Urban land complex, 2 to 15 percent slopes	660	---	660	0.2
WtA	Whitwell silt loam, 0 to 2 percent slopes, occasionally flooded	2,340	1,485	3,825	0.9
WtB	Whitwell silt loam, 2 to 6 percent slopes	1,070	760	1,830	0.4
WuA	Whitwell-Urban land complex, 0 to 2 percent slopes, occasionally flooded	110	145	255	*
	Total	222,200	186,200	408,400	100.0

* Less than 0.1 percent.

Nonirrigated Yields by Map Unit Component

(Yields are those that can be expected under a high level of management. They are for nonirrigated areas. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil.)

Map symbol and soil name	Land capability	Corn	Grass-legume hay	Improved bermudagrass	Soybeans	Tall fescue
		Bu	Tons	AUM	Bu	AUM
AbB:						
Albertville-------------	2e	75.00	3.50	5.50	30.00	5.00
AbD:						
Albertville-------------	4e	50.00	3.00	5.50	25.00	5.00
AnB:						
Allen-------------------	2e	90.00	3.50	6.00	35.00	5.00
AnD:						
Allen-------------------	4e	80.00	3.00	6.00	32.00	5.00
AnE:						
Allen-------------------	6e	---	2.50	5.00	---	4.00
ArC:						
Allen-------------------	3e	---	---	---	---	---
Urban land--------------	---	---	---	---	---	---
ArE:						
Allen-------------------	6e	---	---	---	---	---
Urban land--------------	---	---	---	---	---	---
AuA:						
Arkabutla---------------	2w	95.00	5.00	11.00	35.00	10.00
Ketona------------------	4w	50.00	2.50	7.50	25.00	5.00
BoD:						
Bodine------------------	6s	---	2.00	6.00	---	4.50
BoE:						
Bodine------------------	7s	---	---	5.00	---	3.50
BoF:						
Bodine------------------	7s	---	---	---	---	---
CaA:						
Capshaw-----------------	2w	75.00	2.50	9.00	35.00	7.00
Ketona------------------	4w	---	2.50	7.50	25.00	5.00
Guthrie-----------------	4w	50.00	2.50	7.50	30.00	5.00
CaB:						
Capshaw-----------------	2e	75.00	2.50	9.00	30.00	7.00
Ketona------------------	4w	---	2.50	7.50	25.00	5.00
Guthrie-----------------	4w	50.00	2.50	7.50	30.00	5.00
CkE:						
Cataska-----------------	7s	---	---	---	---	---
CkF:						
Cataska-----------------	7s	---	---	---	---	---

Nonirrigated Yields by Map Unit Component—Continued

Map symbol and soil name	Land capability	Corn	Grass-legume hay	Improved bermudagrass	Soybeans	Tall fescue
		Bu	Tons	AUM	Bu	AUM
CkG:						
Cataska------------------	7s	---	---	---	---	---
CnA:						
Chenneby-----------------	2w	100.00	6.00	10.00	35.00	10.00
Ketona-------------------	4w	50.00	2.50	7.50	25.00	5.00
CoA:						
Chenneby-----------------	2w	---	---	---	---	---
Urban land---------------	---	---	---	---	---	---
Ketona-------------------	4w	---	2.50	7.50	25.00	5.00
CrE:						
Cheoah-------------------	6e	---	2.00	5.00	---	4.50
Edneytown----------------	6e	---	2.00	5.00	---	4.50
CsC:						
Conasauga----------------	4e	---	3.00	6.00	---	5.50
CuC:						
Conasauga----------------	4e	---	---	---	---	---
Urban land---------------	---	---	---	---	---	---
CvB:						
Craigsville--------------	3s	75.00	2.00	6.00	30.00	5.00
CxB:						
Cunningham---------------	2e	65.00	3.50	6.00	30.00	5.50
CxD:						
Cunningham---------------	4e	50.00	3.00	5.50	25.00	5.00
CxE:						
Cunningham---------------	6e	---	2.00	5.00	---	4.00
CxF:						
Cunningham---------------	7e	---	---	---	---	---
DeB:						
Dewey--------------------	2e	105.00	3.50	8.00	40.00	7.50
DeD:						
Dewey--------------------	4e	95.00	3.00	7.50	35.00	7.00
DoA:						
Docena-------------------	2w	90.00	3.50	6.00	40.00	7.00
Ketona-------------------	4w	---	2.50	7.50	25.00	5.00
DsB:						
Docena-------------------	2e	90.00	3.50	6.00	40.00	7.00
Conasauga----------------	3e	60.00	3.50	6.50	30.00	6.50
Ketona-------------------	4w	---	2.50	7.50	25.00	5.00

Nonirrigated Yields by Map Unit Component—Continued

Map symbol and soil name	Land capability	Corn	Grass-legume hay	Improved bermudagrass	Soybeans	Tall fescue
		Bu	Tons	AUM	Bu	AUM
Du:						
Dumps	---	---	---	---	---	---
EdF:						
Edneytown	7s	---	---	---	---	---
EdG:						
Edneytown	7s	---	---	---	---	---
EnB:						
Enders	2e	65.00	3.50	6.00	30.00	5.50
EnD:						
Enders	4e	50.00	3.00	5.50	25.00	5.00
EuC:						
Enders	6e	---	---	---	---	---
Urban land	---	---	---	---	---	---
FtB:						
Fullerton	2e	80.00	3.00	6.00	30.00	6.00
FtD:						
Fullerton	4e	75.00	2.50	6.00	28.00	5.50
FtE:						
Fullerton	6e	---	2.00	5.50	---	5.00
FtF:						
Fullerton	7e	---	---	---	---	---
FuE:						
Fullerton	6e	---	---	---	---	---
Urban land	---	---	---	---	---	---
GrA:						
Guthrie	4w	50.00	2.50	7.50	30.00	5.00
HcB:						
Hanceville	2e	95.00	4.00	9.50	35.00	9.00
HcD:						
Hanceville	4e	85.00	3.50	8.50	30.00	8.00
HcE:						
Hanceville	6e	---	3.00	6.00	---	7.00
HnC:						
Hanceville	4e	---	---	---	---	---
Urban land	---	---	---	---	---	---
HrF:						
Hector	7e	---	---	---	---	---
Townley	7e	---	---	---	---	---
Rock outcrop	---	---	---	---	---	---

Nonirrigated Yields by Map Unit Component—Continued

Map symbol and soil name	Land capability	Corn	Grass-legume hay	Improved bermudagrass	Soybeans	Tall fescue
		Bu	Tons	AUM	Bu	AUM
HsB:						
Holston	2e	90.00	4.00	5.50	30.00	7.50
HsD:						
Holston	4e	85.00	3.50	4.50	25.00	6.50
JfF:						
Jefferson	7e	---	---	---	---	---
JfG:						
Jefferson	7e	---	---	---	---	---
JsE:						
Junaluska	6e	---	3.50	5.50	---	4.50
JsF:						
Junaluska	7e	---	---	---	---	---
JsG:						
Junaluska	7e	---	---	---	---	---
JtE:						
Junaluska	6e	---	3.50	5.50	---	4.50
Tsali	6e	---	2.50	5.00	---	4.00
JtF:						
Junaluska	7e	---	---	---	---	---
Tsali	7e	---	---	---	---	---
KtA:						
Ketona	4w	---	2.50	7.50	25.00	5.00
LyE:						
Lily	6s	---	2.50	5.00	---	4.00
MnC:						
Minvale	4e	---	---	---	---	---
Urban land	---	---	---	---	---	---
MoF:						
Montevallo	7e	---	---	9.50	---	3.00
MtD:						
Montevallo	6e	---	2.00	4.00	---	3.00
Townley	6e	---	2.50	5.00	---	4.50
MtE:						
Montevallo	7e	---	---	3.00	---	2.50
Townley	7e	---	---	4.50	---	4.00
MuE:						
Montevallo	7e	---	---	---	---	---
Urban land	---	---	---	---	---	---
NaD:						
Nauvoo	4e	50.00	3.50	7.00	20.00	6.50

Nonirrigated Yields by Map Unit Component—Continued

Map symbol and soil name	Land capability	Corn	Grass-legume hay	Improved bermudagrass	Soybeans	Tall fescue
		Bu	Tons	AUM	Bu	AUM
NaE:						
Nauvoo	7e	---	---	6.00	---	5.50
NeB:						
Nella	2e	60.00	3.00	8.00	25.00	6.00
NeD:						
Nella	4e	55.00	2.50	7.00	20.00	5.00
NeE:						
Nella	6e	---	2.00	6.50	---	4.00
NeF:						
Nella	7e	---	---	6.00	---	4.00
NtF:						
Nella	7e	---	---	---	---	---
Hector	7e	---	---	---	---	---
Townley	7e	---	---	---	---	---
PaE:						
Panama	7e	---	---	4.50	---	3.50
PaF:						
Panama	7e	---	---	---	---	---
PcD:						
Pigeonroost	4e	---	3.50	5.00	---	4.00
Cheoah	4e	---	3.50	5.00	---	4.00
Qu:						
Pits, quarries	---	---	---	---	---	---
Rk:						
Rock outcrop	---	---	---	---	---	---
SaA:						
Sequatchie	2w	105.00	3.50	10.00	40.00	8.00
SaB:						
Sequatchie	2e	110.00	3.50	10.00	45.00	7.50
ScB:						
Shack	2e	75.00	3.50	6.50	30.00	6.50
Guthrie	4w	50.00	2.50	7.50	30.00	5.00
SdD:						
Shack	4e	60.00	3.00	6.00	20.00	5.50
Bodine	6s	---	2.00	6.00	---	4.50
Minvale	4e	80.00	3.00	6.00	27.00	5.50
SdE:						
Shack	6e	---	2.50	6.00	---	5.00
Bodine	7s	---	---	5.00	---	4.00

Nonirrigated Yields by Map Unit Component—Continued

Map symbol and soil name	Land capability	Corn	Grass-legume hay	Improved bermudagrass	Soybeans	Tall fescue
		Bu	Tons	AUM	Bu	AUM
Minvale------------------	6e	---	2.50	6.00	---	5.00
SeA:						
Shellbluff--------------	2w	150.00	5.00	9.50	45.00	8.00
Ketona------------------	4w	---	2.50	7.50	25.00	5.00
ShC:						
Shelocta----------------	4e	100.00	3.00	6.00	30.00	5.00
SpD:						
Sipsey------------------	4e	80.00	3.50	7.50	30.00	4.00
SpE:						
Sipsey------------------	6e	---	3.00	5.00	---	4.00
SuB:						
Subligna----------------	3s	75.00	2.00	6.00	30.00	5.00
SxA:						
Suches------------------	2w	135.00	5.00	10.00	40.00	7.50
TnB:						
Townley-----------------	3e	60.00	2.50	6.00	25.00	5.00
TnD:						
Townley-----------------	6e	---	2.00	5.00	---	4.50
TnE:						
Townley-----------------	7e	---	---	4.00	---	3.50
TnF:						
Townley-----------------	7e	---	---	---	---	---
TrC:						
Townley-----------------	6e	---	---	---	---	---
Urban land--------------	---	---	---	---	---	---
TsE:						
Tsali-------------------	6e	---	2.50	5.00	---	4.00
TsF:						
Tsali-------------------	7e	---	---	---	---	---
TsG:						
Tsali-------------------	7e	---	---	---	---	---
Uc:						
Ultic Udarents, channery	---	---	---	---	---	---
Ug:						
Ultic Udarents, gravelly	---	---	---	---	---	---
UrC:						
Urban land--------------	---	---	---	---	---	---
WaA:						
Wax---------------------	2w	65.00	3.50	7.00	30.00	6.00
Guthrie-----------------	4w	50.00	2.50	7.50	30.00	5.00

Nonirrigated Yields by Map Unit Component—Continued

Map symbol and soil name	Land capability	Corn	Grass-legume hay	Improved bermudagrass	Soybeans	Tall fescue
		Bu	Tons	AUM	Bu	AUM
WaB:						
Wax	2e	55.00	3.00	6.00	25.00	5.50
WnB:						
Waynesboro	2e	105.00	3.50	8.00	40.00	7.50
WnD:						
Waynesboro	4e	95.00	3.00	7.50	35.00	7.00
WsC:						
Waynesboro	4e	---	---	---	---	---
Urban land	---	---	---	---	---	---
WtA:						
Whitwell	2w	85.00	5.50	10.00	35.00	7.50
Guthrie	4w	50.00	2.50	7.50	30.00	5.00
Ketona	4w	---	2.50	7.50	25.00	5.00
WtB:						
Whitwell	2e	85.00	5.50	10.00	35.00	7.50
WuA:						
Whitwell	2w	---	---	---	---	---
Urban land	---	---	---	---	---	---
Ketona	4w	---	2.50	7.50	25.00	5.00

Prime Farmland and Other Important Farmlands

(Only the soils considered prime or important farmland are listed. Urban or built-up areas of the soils listed are not considered prime or important farmland. If a soil is prime or important farmland only under certain conditions, the conditions are specified in parentheses after the soil name.)

Map symbol	Map unit name	Farmland Classification
AbB	Albertville silt loam, 2 to 6 percent slopes	Prime farmland in all areas
AnB	Allen loam, 2 to 6 percent slopes	Prime farmland in all areas
CaA	Capshaw silt loam, 0 to 2 percent slopes	Prime farmland in all areas
CaB	Capshaw silt loam, 2 to 6 percent slopes	Prime farmland in all areas
CxB	Cunningham silt loam, 2 to 6 percent slopes	Prime farmland in all areas
DeB	Dewey silt loam, 2 to 6 percent slopes	Prime farmland in all areas
DoA	Docena silt loam, 0 to 2 percent slopes, occasionally flooded	Prime farmland in all areas
DsB	Docena-Conasauga complex, 2 to 6 percent slopes	Prime farmland in all areas
EnB	Enders silt loam, 2 to 6 percent slopes	Prime farmland in all areas
FtB	Fullerton gravelly silt loam, 2 to 6 percent slopes	Prime farmland in all areas
HcB	Hanceville loam, 2 to 6 percent slopes	Prime farmland in all areas
HsB	Holston fine sandy loam, 2 to 6 percent slopes	Prime farmland in all areas
NeB	Nella gravelly fine sandy loam, 2 to 6 percent slopes	Prime farmland in all areas
SaA	Sequatchie loam, 0 to 2 percent slopes, occasionally flooded	Prime farmland in all areas
SaB	Sequatchie loam, 2 to 6 percent slopes	Prime farmland in all areas
ScB	Shack gravelly silt loam, 2 to 6 percent slopes	Prime farmland in all areas
SeA	Shellbluff silt loam, 0 to 2 percent slopes, occasionally flooded	Prime farmland in all areas
SxA	Suches loam, 0 to 2 percent slopes, occasionally flooded	Prime farmland in all areas
WnB	Waynesboro sandy loam, 2 to 6 percent slopes	Prime farmland in all areas
WtA	Whitwell silt loam, 0 to 2 percent slopes, occasionally flooded	Prime farmland in all areas
WtB	Whitwell silt loam, 2 to 6 percent slopes	Prime farmland in all areas
AuA	Arkabutla silt loam, 0 to 2 percent slopes, occasionally flooded	Farmland of statewide importance
CnA	Chenneby silt loam, 0 to 2 percent slopes, occasionally flooded	Farmland of statewide importance
CsC	Conasauga silt loam, 6 to 10 percent slopes	Farmland of statewide importance
SuB	Subligna extremely gravelly sandy loam, 0 to 5 percent slopes, occasionally flooded	Farmland of statewide importance
TnB	Townley silt loam, 2 to 6 percent slopes	Farmland of statewide importance
WaA	Wax fine sandy loam, 0 to 2 percent slopes, occasionally flooded	Farmland of statewide importance
WaB	Wax fine sandy loam, 2 to 6 percent slopes, rarely flooded	Farmland of statewide importance

Forestland Productivity

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Potential for seedling mortality: Rating class and limiting features	Potential for seedling mortality: Value	Potential productivity: Common trees	Potential productivity: Site index	Potential productivity: Volume of wood fiber	Trees to manage
					cu ft/ac	
AbB:						
Albertville-----------	Low		loblolly pine-------	80	114	loblolly pine,
			shortleaf pine------	71	114	shortleaf pine
			Virginia pine-------	70	114	
AbD:						
Albertville-----------	Low		loblolly pine-------	80	114	loblolly pine,
			shortleaf pine------	71	114	shortleaf pine
			Virginia pine-------	70	114	
AnB:						
Allen-----------------	Low		loblolly pine-------	80	114	loblolly pine,
			shortleaf pine------	72	114	shortleaf pine,
			yellow-poplar-------	87	86	yellow-poplar
AnD:						
Allen-----------------	Low		loblolly pine-------	80	114	loblolly pine,
			shortleaf pine------	72	114	shortleaf pine,
			yellow-poplar-------	87	86	yellow-poplar
AnE:						
Allen-----------------	Moderate		loblolly pine-------	70	86	loblolly pine,
	Available water	0.50	shortleaf pine------	60	86	shortleaf pine
			southern red oak----	60	43	
			Virginia pine-------	60	86	
ArC:						
Allen-----------------	Low		loblolly pine-------	80	114	loblolly pine,
			shortleaf pine------	72	114	shortleaf pine,
			yellow-poplar-------	87	86	yellow-poplar
Urban land------------	Not rated		---	---	---	---
ArE:						
Allen-----------------	Moderate		loblolly pine-------	70	86	loblolly pine,
	Available water	0.50	shortleaf pine------	60	86	shortleaf pine
			southern red oak----	60	43	
			Virginia pine-------	60	86	
Urban land------------	Not rated		---	---	---	---
AuA:						
Arkabutla-------------	High		cherrybark oak------	105	57	American sycamore,
	Wetness	1.00	green ash-----------	95	57	cherrybark oak,
			loblolly pine-------	100	129	eastern
			sweetgum------------	100	143	cottonwood, green
			water oak-----------	100	0	ash, loblolly
			willow oak----------	100	0	pine, sweetgum
Ketona----------------	High		loblolly pine-------	80	114	loblolly pine,
	Wetness	1.00	sweetgum------------	80	86	sweetgum, water
			water oak-----------	80	72	oak

Forestland Productivity—Continued

Map symbol and soil name	Potential for seedling mortality: Rating class and limiting features	Potential for seedling mortality: Value	Potential productivity: Common trees	Potential productivity: Site index	Potential productivity: Volume of wood fiber	Trees to manage
					cu ft/ac	
BoD:						
Bodine----------------	Low		black oak-----------	70	57	loblolly pine, shortleaf pine
			loblolly pine-------	80	114	
			shortleaf pine------	70	114	
			southern red oak----	70	57	
			yellow-poplar-------	90	86	
BoE:						
Bodine----------------	Moderate		black oak-----------	70	57	loblolly pine, shortleaf pine
	Available water	0.50	loblolly pine-------	70	86	
			shortleaf pine------	60	86	
			southern red oak----	70	57	
BoF:						
Bodine----------------	Moderate		chestnut oak--------	60	43	loblolly pine, shortleaf pine
	Available water	0.50	loblolly pine-------	70	86	
			scarlet oak---------	60	43	
			southern red oak----	60	43	
			Virginia pine-------	60	86	
CaA:						
Capshaw---------------	Low		loblolly pine-------	80	114	loblolly pine, shortleaf pine, yellow-poplar
			northern red oak----	70	57	
			yellow-poplar-------	90	86	
Ketona----------------	High		loblolly pine-------	80	114	loblolly pine, sweetgum, water oak
	Wetness	1.00	sweetgum------------	80	86	
			water oak-----------	80	72	
Guthrie---------------	High		loblolly pine-------	80	114	loblolly pine, sweetgum
	Wetness	1.00	southern red oak----	75	57	
			sweetgum------------	90	100	
			willow oak----------	85	86	
			yellow-poplar-------	100	114	
CaB:						
Capshaw---------------	Low		loblolly pine-------	80	114	loblolly pine, shortleaf pine, yellow-poplar
			northern red oak----	70	57	
			yellow-poplar-------	90	86	
Ketona----------------	High		loblolly pine-------	80	114	loblolly pine, sweetgum, water oak
	Wetness	1.00	sweetgum------------	80	86	
			water oak-----------	80	72	
Guthrie---------------	High		loblolly pine-------	80	114	loblolly pine, sweetgum
	Wetness	1.00	southern red oak----	75	57	
			sweetgum------------	90	100	
			willow oak----------	85	86	
			yellow-poplar-------	100	114	
CkE:						
Cataska---------------	Low		chestnut oak--------	50	29	Virginia pine
			scarlet oak---------	50	29	
CkF:						
Cataska---------------	Moderate		chestnut oak--------	50	29	Virginia pine
	Available water	0.50	scarlet oak---------	50	29	

Forestland Productivity—Continued

Map symbol and soil name	Potential for seedling mortality: Rating class and limiting features	Value	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
					cu ft/ac	
CkG:						
Cataska	Moderate		chestnut oak	50	29	Virginia pine
	Available water	0.50	scarlet oak	50	29	
CnA:						
Chenneby	Low		American sycamore	100	157	American sycamore,
			loblolly pine	100	157	loblolly pine,
			sweetgum	100	143	sweetgum, water
			water oak	100	100	oak, yellow-
			yellow-poplar	100	129	poplar
Ketona	High		loblolly pine	80	114	loblolly pine,
	Wetness	1.00	sweetgum	80	86	sweetgum, water
			water oak	80	72	oak
CoA:						
Chenneby	Low		American sycamore	100	157	American sycamore,
			loblolly pine	100	157	loblolly pine,
			sweetgum	100	143	sweetgum, water
			water oak	100	100	oak, yellow-
			yellow-poplar	100	129	poplar
Urban land	Not rated		---	---	---	---
Ketona	High		loblolly pine	80	114	loblolly pine,
	Wetness	1.00	sweetgum	80	86	sweetgum, water
			water oak	80	72	oak
CrE:						
Cheoah	Moderate		black cherry	74	43	northern red oak,
	Available water	0.50	black oak	---	0	yellow-poplar
			northern red oak	84	72	
			yellow-poplar	103	114	
Edneytown	Moderate		eastern white pine	80	143	eastern white
	Available water	0.50	loblolly pine	80	114	pine,
			shortleaf pine	70	114	loblolly pine
			southern red oak	60	43	shortleaf pine,
			Virginia pine	70	114	yellow-poplar
			white oak	60	43	
			yellow-poplar	90	86	
CsC:						
Conasauga	Low		eastern redcedar	50	57	loblolly pine,
			loblolly pine	72	100	shortleaf pine
			shortleaf pine	71	114	
			Virginia pine	71	114	
CuC:						
Conasauga	Low		eastern redcedar	50	57	loblolly pine,
			loblolly pine	72	100	shortleaf pine
			shortleaf pine	71	114	
			Virginia pine	71	114	
Urban land	Not rated		---	---	---	---

Forestland Productivity—Continued

Map symbol and soil name	Potential for seedling mortality: Rating class and limiting features	Potential for seedling mortality: Value	Potential productivity: Common trees	Potential productivity: Site index	Potential productivity: Volume of wood fiber	Trees to manage
					cu ft/ac	
CvB:						
Craigsville-----------	Low		eastern white pine--	90	172	eastern white pine, yellow-poplar
			northern red oak----	80	57	
			Virginia pine-------	80	114	
			yellow-poplar-------	95	100	
CxB:						
Cunningham------------	Low		eastern redcedar----	40	43	loblolly pine, shortleaf pine
			loblolly pine-------	80	114	
			shortleaf pine------	60	86	
			southern red oak----	60	43	
			white oak-----------	55	43	
CxD:						
Cunningham------------	Low		eastern redcedar----	40	43	loblolly pine, shortleaf pine
			loblolly pine-------	80	114	
			shortleaf pine------	60	86	
			southern red oak----	60	43	
			white oak-----------	55	43	
CxE:						
Cunningham------------	Moderate		eastern redcedar----	40	43	loblolly pine, shortleaf pine
	Available water	0.50	loblolly pine-------	70	86	
			shortleaf pine------	60	86	
			southern red oak----	60	43	
			white oak-----------	55	43	
CxF:						
Cunningham------------	Moderate		eastern redcedar----	40	43	loblolly pine, shortleaf pine
	Available water	0.50	loblolly pine-------	70	86	
			shortleaf pine------	60	86	
			southern red oak----	60	43	
			white oak-----------	55	43	
DeB:						
Dewey-----------------	Low		loblolly pine-------	80	114	loblolly pine, shortleaf pine, yellow-poplar
			southern red oak----	70	57	
			white oak-----------	70	57	
			yellow-poplar-------	90	86	
DeD:						
Dewey-----------------	Low		loblolly pine-------	80	114	loblolly pine, shortleaf pine, yellow-poplar
			southern red oak----	70	57	
			white oak-----------	70	57	
			yellow-poplar-------	90	86	
DoA:						
Docena----------------	Low		loblolly pine-------	86	129	loblolly pine, sweetgum, water oak, yellow-poplar
			shortleaf pine------	76	114	
			sweetgum------------	86	100	
			water oak-----------	86	86	
			yellow-poplar-------	96	100	
Ketona----------------	High		loblolly pine-------	80	114	loblolly pine, sweetgum, water oak
	Wetness	1.00	sweetgum------------	80	86	
			water oak-----------	80	72	

Forestland Productivity—Continued

Map symbol and soil name	Potential for seedling mortality: Rating class and limiting features	Value	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
					cu ft/ac	
DsB:						
Docena----------------	Low		loblolly pine-------	86	129	loblolly pine,
			shortleaf pine------	76	114	sweetgum, water
			sweetgum------------	86	100	oak, yellow-
			water oak-----------	86	86	poplar
			yellow-poplar-------	96	100	
Conasauga-------------	Low		eastern redcedar----	50	57	loblolly pine,
			loblolly pine-------	72	100	shortleaf pine
			shortleaf pine------	71	114	
			Virginia pine-------	71	114	
Ketona----------------	High		loblolly pine-------	80	114	loblolly pine,
	Wetness	1.00	sweetgum------------	80	86	sweetgum, water
			water oak-----------	80	72	oak
Du:						
Dumps-----------------	Not rated		---	---	---	---
EdF:						
Edneytown-------------	Moderate		eastern white pine--	80	143	shortleaf pine
	Available water	0.50	loblolly pine-------	80	114	
			shortleaf pine------	70	114	
			southern red oak----	60	43	
			Virginia pine-------	70	114	
			white oak-----------	60	43	
			yellow-poplar-------	90	86	
EdG:						
Edneytown-------------	Moderate		eastern white pine--	80	143	shortleaf pine
	Available water	0.50	loblolly pine-------	80	114	
			shortleaf pine------	70	114	
			southern red oak----	60	43	
			Virginia pine-------	70	114	
			white oak-----------	60	43	
			yellow-poplar-------	90	86	
EnB:						
Enders----------------	Low		eastern redcedar----	40	43	loblolly pine,
			loblolly pine-------	80	114	shortleaf pine
			shortleaf pine------	60	86	
			southern red oak----	60	43	
			white oak-----------	55	43	
EnD:						
Enders----------------	Low		eastern redcedar----	40	43	loblolly pine,
			loblolly pine-------	80	114	shortleaf pine
			shortleaf pine------	60	86	
			southern red oak----	60	43	
			white oak-----------	55	43	
EuC:						
Enders----------------	Low		eastern redcedar----	40	43	loblolly pine,
			loblolly pine-------	80	114	shortleaf pine
			shortleaf pine------	60	86	
			southern red oak----	60	43	
			white oak-----------	55	43	
Urban land------------	Not rated		---	---	---	---

Forestland Productivity—Continued

Map symbol and soil name	Potential for seedling mortality: Rating class and limiting features	Value	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
					cu ft/ac	
FtB:						
Fullerton-------------	Low		loblolly pine-------	80	114	loblolly pine,
			shortleaf pine------	67	100	shortleaf pine,
			southern red oak----	70	57	yellow-poplar
			yellow-poplar-------	90	86	
FtD:						
Fullerton-------------	Low		loblolly pine-------	80	114	loblolly pine,
			shortleaf pine------	67	100	shortleaf pine,
			southern red oak----	70	57	yellow-poplar
			yellow-poplar-------	90	86	
FtE:						
Fullerton-------------	Moderate		loblolly pine-------	70	86	loblolly pine,
	Available water	0.50	shortleaf pine------	60	86	shortleaf pine
			southern red oak----	60	43	
FtF:						
Fullerton-------------	Moderate		loblolly pine-------	70	86	loblolly pine,
	Available water	0.50	shortleaf pine------	60	86	shortleaf pine
			southern red oak----	60	43	
FuE:						
Fullerton-------------	Moderate		loblolly pine-------	---	---	loblolly pine,
	Available water	0.50	shortleaf pine------	60	86	shortleaf pine
			southern red oak----	60	43	
Urban land------------	Not rated		---	---	---	---
GrA:						
Guthrie---------------	High		loblolly pine-------	80	114	loblolly pine,
	Wetness	1.00	southern red oak----	75	57	sweetgum
			sweetgum------------	90	100	
			willow oak----------	85	86	
			yellow-poplar-------	100	114	
HcB:						
Hanceville------------	Low		loblolly pine-------	73	100	loblolly pine,
			shortleaf pine------	65	100	shortleaf pine
			Virginia pine-------	70	114	
HcD:						
Hanceville------------	Low		loblolly pine-------	73	100	loblolly pine,
			shortleaf pine------	65	100	shortleaf pine
			Virginia pine-------	70	114	
HcE:						
Hanceville------------	Moderate		loblolly pine-------	73	100	loblolly pine,
	Available water	0.50	shortleaf pine------	65	100	shortleaf pine
			Virginia pine-------	70	114	
HnC:						
Hanceville------------	Low		loblolly pine-------	73	100	loblolly pine,
			shortleaf pine------	65	100	shortleaf pine
			Virginia pine-------	70	114	
Urban land------------	Not rated		---	---	---	---

Forestland Productivity—Continued

Map symbol and soil name	Potential for seedling mortality: Rating class and limiting features	Potential for seedling mortality: Value	Potential productivity: Common trees	Potential productivity: Site index	Potential productivity: Volume of wood fiber	Trees to manage
					cu ft/ac	
HrF:						
Hector----------------	Moderate		eastern redcedar----	30	57	loblolly pine,
	Available water	0.50	loblolly pine-------	61	72	shortleaf pine
			shortleaf pine------	50	114	
Townley---------------	Moderate		loblolly pine-------	70	86	loblolly pine,
	Available water	0.50	shortleaf pine------	60	86	shortleaf pine
			Virginia pine-------	70	114	
Rock outcrop----------	Not rated		---	---	---	---
HsB:						
Holston---------------	Low		loblolly pine-------	80	114	loblolly pine,
			northern red oak----	78	57	shortleaf pine
			shortleaf pine------	69	114	
			yellow-poplar-------	86	86	
HsD:						
Holston---------------	Low		loblolly pine-------	80	114	loblolly pine,
			northern red oak----	78	57	shortleaf pine
			shortleaf pine------	69	114	
			yellow-poplar-------	86	86	
JfF:						
Jefferson-------------	Moderate		northern red oak----	85	57	shortleaf pine,
	Available water	0.50	shortleaf pine------	---	0	yellow-poplar
			white oak-----------	---	0	
			yellow-poplar-------	108	114	
JfG:						
Jefferson-------------	Moderate		northern red oak----	85	57	shortleaf pine,
	Available water	0.50	shortleaf pine------	---	0	yellow-poplar
			white oak-----------	---	0	
			yellow-poplar-------	108	114	
JsE:						
Junaluska-------------	Low		black oak-----------	---	0	shortleaf pine
			chestnut oak--------	65	43	
			eastern white pine--	86	157	
			northern red oak----	---	0	
			scarlet oak---------	69	43	
			shortleaf pine------	69	114	
			Virginia pine-------	74	114	
			white oak-----------	61	43	
JsF:						
Junaluska-------------	Moderate		black oak-----------	---	0	shortleaf pine
	Available water	0.50	chestnut oak--------	65	43	
			eastern white pine--	86	157	
			northern red oak----	---	0	
			scarlet oak---------	69	43	
			shortleaf pine------	69	114	
			Virginia pine-------	74	114	
			white oak-----------	61	43	

Forestland Productivity—Continued

Map symbol and soil name	Potential for seedling mortality: Rating class and limiting features	Potential for seedling mortality: Value	Potential productivity: Common trees	Potential productivity: Site index	Potential productivity: Volume of wood fiber	Trees to manage
					cu ft/ac	
JsG:						
Junaluska	Moderate		black oak	---	0	shortleaf pine
	Available water	0.50	chestnut oak	65	43	
			eastern white pine	86	157	
			northern red oak	---	0	
			scarlet oak	69	43	
			shortleaf pine	69	114	
			Virginia pine	74	114	
			white oak	61	43	
JtE:						
Junaluska	Low		black oak	---	0	eastern white pine, shortleaf pine
			chestnut oak	65	43	
			eastern white pine	86	157	
			northern red oak	---	0	
			scarlet oak	69	43	
			shortleaf pine	69	114	
			Virginia pine	74	114	
			white oak	61	43	
Tsali	Low		black oak	---	0	shortleaf pine
			chestnut oak	---	0	
			scarlet oak	64	43	
			shortleaf pine	60	86	
			southern red oak	---	0	
			Virginia pine	66	100	
			white oak	57	43	
JtF:						
Junaluska	Moderate		black oak	---	0	shortleaf pine
	Available water	0.50	chestnut oak	65	43	
			eastern white pine	86	157	
			northern red oak	---	0	
			scarlet oak	69	43	
			shortleaf pine	69	114	
			Virginia pine	74	114	
			white oak	61	43	
Tsali	Moderate		black oak	---	0	shortleaf pine
	Available water	0.50	chestnut oak	---	0	
			scarlet oak	64	43	
			shortleaf pine	60	86	
			southern red oak	---	0	
			Virginia pine	66	100	
			white oak	57	43	
KtA:						
Ketona	High		loblolly pine	80	114	loblolly pine, sweetgum, water oak
	Wetness	1.00	sweetgum	80	86	
			water oak	80	72	
LyE:						
Lily	Low		scarlet oak	66	0	shortleaf pine, white oak
			shortleaf pine	57	0	
			Virginia pine	71	0	
			white oak	67	0	
			yellow-poplar	88	86	

Forestland Productivity—Continued

Map symbol and soil name	Potential for seedling mortality: Rating class and limiting features	Value	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
					cu ft/ac	
MnC:						
Minvale----------------	Low		loblolly pine-------	80	114	loblolly pine,
			shortleaf pine------	70	114	yellow-poplar
			Virginia pine-------	70	114	
			white oak-----------	70	57	
			yellow-poplar-------	90	86	
Urban land------------	Not rated		---	---	---	---
MoF:						
Montevallo------------	High		loblolly pine-------	61	72	loblolly pine
	Available water	1.00	shortleaf pine------	61	86	
			Virginia pine-------	61	86	
MtD:						
Montevallo------------	Moderate		loblolly pine-------	66	86	loblolly pine,
	Available water	0.50	shortleaf pine------	61	86	shortleaf pine
			Virginia pine-------	61	86	
Townley---------------	Low		loblolly pine-------	70	86	loblolly pine,
			shortleaf pine------	60	86	shortleaf pine
			Virginia pine-------	70	114	
MtE:						
Montevallo------------	High		loblolly pine-------	61	72	loblolly pine,
	Available water	1.00	shortleaf pine------	61	86	shortleaf pine
			Virginia pine-------	61	86	
Townley---------------	Moderate		---	---	---	loblolly pine,
	Available water	0.50				shortleaf pine
MuE:						
Montevallo------------	High		loblolly pine-------	61	72	loblolly pine,
	Available water	1.00	shortleaf pine------	61	86	shortleaf pine
			Virginia pine-------	61	86	
Urban land------------	Not rated		---	---	---	---
NaD:						
Nauvoo----------------	Low		loblolly pine-------	89	129	loblolly pine,
			shortleaf pine------	80	129	shortleaf pine,
			sweetgum------------	90	100	yellow-poplar
			Virginia pine-------	80	114	
			yellow-poplar-------	100	114	
NaE:						
Nauvoo----------------	Moderate		loblolly pine-------	89	129	loblolly pine,
	Available water	0.50	shortleaf pine------	80	129	shortleaf pine,
			sweetgum------------	90	100	yellow-poplar
			Virginia pine-------	80	114	
			yellow-poplar-------	100	114	
NeB:						
Nella-----------------	Low		loblolly pine-------	80	114	loblolly pine,
			shortleaf pine------	70	114	shortleaf pine,
			southern red oak----	70	57	yellow-poplar
			Virginia pine-------	70	114	
			yellow-poplar-------	96	86	

Forestland Productivity—Continued

Map symbol and soil name	Potential for seedling mortality: Rating class and limiting features	Potential for seedling mortality: Value	Potential productivity: Common trees	Potential productivity: Site index	Potential productivity: Volume of wood fiber (cu ft/ac)	Trees to manage
NeD:						
Nella	Low		loblolly pine	80	114	loblolly pine, shortleaf pine, yellow-poplar
			shortleaf pine	70	114	
			southern red oak	70	57	
			Virginia pine	70	114	
			yellow-poplar	96	86	
NeE:						
Nella	Moderate		eastern redcedar	30	29	loblolly pine, shortleaf pine
	Available water	0.50	loblolly pine	70	86	
			shortleaf pine	60	86	
			southern red oak	60	43	
			Virginia pine	60	86	
NeF:						
Nella	Moderate		eastern redcedar	30	29	loblolly pine, shortleaf pine
	Available water	0.50	loblolly pine	70	86	
			shortleaf pine	60	86	
			southern red oak	60	43	
			Virginia pine	60	86	
NtF:						
Nella	Moderate		eastern redcedar	30	29	loblolly pine, shortleaf pine
	Available water	0.50	loblolly pine	70	86	
			shortleaf pine	60	86	
			southern red oak	60	43	
			Virginia pine	60	86	
Hector	Moderate		eastern redcedar	30	57	loblolly pine, shortleaf pine
	Available water	0.50	loblolly pine	61	72	
			shortleaf pine	50	114	
Townley	Moderate		loblolly pine	70	86	loblolly pine, shortleaf pine
	Available water	0.50	shortleaf pine	60	86	
			Virginia pine	70	114	
PaE:						
Panama	Moderate		loblolly pine	70	86	loblolly pine, shortleaf pine
	Available water	0.50	shortleaf pine	60	86	
			southern red oak	60	43	
			white oak	---	0	
PaF:						
Panama	Moderate		loblolly pine	70	86	shortleaf pine
	Available water	0.50	shortleaf pine	60	86	
			southern red oak	60	43	
			white oak	---	0	
PcD:						
Pigeonroost	Low		black oak	---	0	chestnut oak, eastern white pine, white oak, yellow-poplar
			chestnut oak	---	0	
			eastern white pine	94	172	
			scarlet oak	---	0	
			white oak	80	57	
			yellow-poplar	91	86	

Forestland Productivity—Continued

Map symbol and soil name	Potential for seedling mortality: Rating class and limiting features	Value	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
					cu ft/ac	
Cheoah----------------	Low		black cherry--------	74	43	northern red oak,
			black oak-----------	---	0	yellow-poplar
			northern red oak----	84	72	
			yellow-poplar-------	103	114	
Qu:						
Pits, quarries--------	Not rated		---	---	---	---
Rk:						
Rock outcrop----------	Not rated		---	---	---	---
SaA:						
Sequatchie------------	Low		loblolly pine-------	90	129	black walnut,
			white oak-----------	80	57	loblolly pine,
			yellow-poplar-------	100	114	yellow-poplar
SaB:						
Sequatchie------------	Low		loblolly pine-------	90	129	black walnut,
			white oak-----------	80	57	loblolly pine,
			yellow-poplar-------	100	114	yellow-poplar
ScB:						
Shack-----------------	Low		loblolly pine-------	80	114	loblolly pine,
			shortleaf pine------	73	114	shortleaf pine
			yellow-poplar-------	89	86	
Guthrie---------------	High		loblolly pine-------	80	114	loblolly pine,
	Wetness	1.00	southern red oak----	75	57	sweetgum
			sweetgum------------	90	100	
			willow oak----------	85	86	
			yellow-poplar-------	100	114	
SdD:						
Shack-----------------	Low		loblolly pine-------	80	114	loblolly pine,
			shortleaf pine------	73	114	shortleaf pine
			yellow-poplar-------	89	86	
Bodine----------------	Low		black oak-----------	70	57	loblolly pine,
			loblolly pine-------	80	114	shortleaf pine
			shortleaf pine------	70	114	
			southern red oak----	70	57	
			yellow-poplar-------	90	86	
Minvale---------------	Low		loblolly pine-------	80	114	loblolly pine,
			shortleaf pine------	70	114	shortleaf pine
			Virginia pine-------	70	114	
			white oak-----------	70	57	
			yellow-poplar-------	90	86	
SdE:						
Shack-----------------	Moderate		loblolly pine-------	80	114	loblolly pine,
	Available water	0.50	shortleaf pine------	73	114	shortleaf pine
			yellow-poplar-------	89	86	
Bodine----------------	Moderate		black oak-----------	70	57	loblolly pine,
	Available water	0.50	loblolly pine-------	70	86	shortleaf pine
			shortleaf pine------	60	86	
			southern red oak----	70	57	
			yellow-poplar-------	90	86	

Forestland Productivity—Continued

Map symbol and soil name	Potential for seedling mortality: Rating class and limiting features	Potential for seedling mortality: Value	Potential productivity: Common trees	Potential productivity: Site index	Potential productivity: Volume of wood fiber	Trees to manage
					cu ft/ac	
Minvale----------------	Moderate		loblolly pine-------	70	86	loblolly pine,
	Available water	0.50	shortleaf pine------	60	86	shortleaf pine
			southern red oak----	60	43	
			Virginia pine-------	60	86	
			white oak-----------	60	43	
SeA:						
Shellbluff------------	Low		black walnut--------	100	0	black walnut,
			cherrybark oak------	105	172	yellow-poplar
			loblolly pine-------	90	129	
			scarlet oak---------	100	86	
			sweetgum------------	100	143	
			yellow-poplar-------	105	114	
Ketona----------------	High		loblolly pine-------	80	114	loblolly pine,
	Wetness	1.00	sweetgum------------	80	86	sweetgum, water
			water oak-----------	80	72	oak
ShC:						
Shelocta--------------	Low		scarlet oak---------	80	57	eastern white
			shortleaf pine------	77	129	pine,
			white oak-----------	77	57	northern red oak,
			yellow-poplar-------	99	100	shortleaf pine,
						white ash, white
						oak, yellow-
						poplar
SpD:						
Sipsey----------------	Low		loblolly pine-------	85	114	loblolly pine,
			Virginia pine-------	75	114	shortleaf pine
			white oak-----------	75	57	
SpE:						
Sipsey----------------	Moderate		loblolly pine-------	85	114	loblolly pine,
	Available water	0.50	Virginia pine-------	75	114	shortleaf pine
			white oak-----------	75	57	
SuB:						
Subligna--------------	Low		northern red oak----	80	57	loblolly pine,
			Virginia pine-------	80	114	yellow-poplar
			yellow-poplar-------	95	100	
SxA:						
Suches----------------	Low		eastern white pine--	100	186	black walnut,
			loblolly pine-------	90	129	northern red oak,
			northern red oak----	90	57	yellow-poplar
			shortleaf pine------	80	129	
			yellow-poplar-------	105	114	
TnB:						
Townley---------------	Low		loblolly pine-------	70	86	loblolly pine,
			shortleaf pine------	60	86	shortleaf pine
			Virginia pine-------	70	114	
TnD:						
Townley---------------	Low		loblolly pine-------	70	86	loblolly pine,
			shortleaf pine------	60	86	shortleaf pine
			Virginia pine-------	70	114	

Forestland Productivity—Continued

Map symbol and soil name	Potential for seedling mortality: Rating class and limiting features	Potential for seedling mortality: Value	Potential productivity: Common trees	Potential productivity: Site index	Potential productivity: Volume of wood fiber	Trees to manage
					cu ft/ac	
TnE:						
Townley	Moderate		loblolly pine	70	86	loblolly pine,
	Available water	0.50	shortleaf pine	60	86	shortleaf pine
			Virginia pine	70	114	
TnF:						
Townley	Moderate		loblolly pine	70	86	loblolly pine,
	Available water	0.50	shortleaf pine	60	86	shortleaf pine
			Virginia pine	70	114	
TrC:						
Townley	Low		loblolly pine	70	86	loblolly pine,
			shortleaf pine	60	86	shortleaf pine
			Virginia pine	70	114	
Urban land	Not rated		---	---	---	---
TsE:						
Tsali	Low		black oak	---	0	shortleaf pine
			chestnut oak	---	0	
			scarlet oak	64	43	
			shortleaf pine	60	86	
			southern red oak	---	0	
			Virginia pine	66	100	
			white oak	57	43	
TsF:						
Tsali	Moderate		black oak	---	0	shortleaf pine
	Available water	0.50	chestnut oak	---	0	
			scarlet oak	64	43	
			shortleaf pine	60	86	
			southern red oak	---	0	
			Virginia pine	66	100	
			white oak	57	43	
TsG:						
Tsali	Moderate		black oak	---	0	shortleaf pine,
	Available water	0.50	chestnut oak	---	0	Virginia pine
			scarlet oak	64	43	
			shortleaf pine	60	86	
			southern red oak	---	0	
			Virginia pine	66	100	
			white oak	57	43	
Uc:						
Ultic Udarents, channery	Not rated		---	---	---	---
Ug:						
Ultic Udarents, gravelly	Not rated		---	---	---	---
UrC:						
Urban land	Not rated		---	---	---	---

Forestland Productivity—Continued

Map symbol and soil name	Potential for seedling mortality: Rating class and limiting features	Potential for seedling mortality: Value	Potential productivity: Common trees	Potential productivity: Site index	Potential productivity: Volume of wood fiber (cu ft/ac)	Trees to manage
WaA:						
Wax	Low		loblolly pine	80	114	loblolly pine, yellow-poplar
			shortleaf pine	70	114	
			sweetgum	80	86	
			yellow-poplar	90	86	
Guthrie	High Wetness	 1.00	loblolly pine	80	114	loblolly pine, sweetgum
			southern red oak	75	57	
			sweetgum	90	100	
			willow oak	85	86	
			yellow-poplar	100	114	
WaB:						
Wax	Low		loblolly pine	80	114	loblolly pine, yellow-poplar
			shortleaf pine	70	114	
			sweetgum	80	86	
			yellow-poplar	90	86	
WnB:						
Waynesboro	Low		loblolly pine	80	114	loblolly pine, shortleaf pine, yellow-poplar
			southern red oak	70	57	
			white oak	70	57	
			yellow-poplar	90	86	
WnD:						
Waynesboro	Low		loblolly pine	80	114	loblolly pine, shortleaf pine, yellow-poplar
			southern red oak	70	57	
			white oak	70	57	
			yellow-poplar	90	86	
WsC:						
Waynesboro	Low		loblolly pine	80	114	loblolly pine, shortleaf pine, yellow-poplar
			southern red oak	70	57	
			white oak	70	57	
			yellow-poplar	90	86	
Urban land	Not rated		---	---	---	---
WtA:						
Whitwell	Low		loblolly pine	90	129	loblolly pine, sweetgum
			northern red oak	75	57	
			sweetgum	90	100	
			yellow-poplar	95	100	
Guthrie	High Wetness	 1.00	loblolly pine	80	114	loblolly pine, sweetgum
			southern red oak	75	57	
			sweetgum	90	100	
			willow oak	85	86	
			yellow-poplar	100	114	
Ketona	High Wetness	 1.00	loblolly pine	80	114	loblolly pine, sweetgum, water oak
			sweetgum	80	86	
			water oak	80	72	
WtB:						
Whitwell	Low		loblolly pine	90	129	loblolly pine, sweetgum
			northern red oak	75	57	
			sweetgum	90	100	
			yellow-poplar	95	100	

Forestland Productivity—Continued

Map symbol and soil name	Potential for seedling mortality: Rating class and limiting features	Potential for seedling mortality: Value	Potential productivity: Common trees	Potential productivity: Site index	Potential productivity: Volume of wood fiber	Trees to manage
					cu ft/ac	
WuA:						
Whitwell--------------	Low		loblolly pine-------	90	129	loblolly pine, sweetgum
			northern red oak----	75	57	
			sweetgum------------	90	100	
			yellow-poplar-------	95	100	
Urban land------------	Not rated		---	---	---	---
Ketona----------------	High		loblolly pine-------	80	114	loblolly pine, sweetgum, water oak
	Wetness	1.00	sweetgum------------	80	86	
			water oak-----------	80	72	

Log Landings, Hazard of Erosion, and Suitability for Roads on Forestland

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.1 to 1.0. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Suitability for log landings: Rating class and limiting features	Value	Hazard of erosion on roads and trails: Rating class and limiting features	Value	Suitability for roads (natural surface): Rating class and limiting features	Value
AbB:						
Albertville	Moderately suited		Moderate		Moderately suited	
	Low strength	0.50	Slope/erodibility	0.50	Low strength	0.50
AbD:						
Albertville	Moderately suited		Severe		Moderately suited	
	Slope	0.50	Slope/erodibility	0.95	Slope	0.50
	Low strength	0.50			Low strength	0.50
AnB:						
Allen	Moderately suited		Moderate		Moderately suited	
	Low strength	0.50	Slope/erodibility	0.50	Low strength	0.50
AnD:						
Allen	Moderately suited		Severe		Moderately suited	
	Slope	0.50	Slope/erodibility	0.95	Slope	0.50
	Low strength	0.50			Low strength	0.50
AnE:						
Allen	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
	Low strength	0.50			Low strength	0.50
ArC:						
Allen	Moderately suited		Severe		Moderately suited	
	Slope	0.50	Slope/erodibility	0.95	Slope	0.50
	Low strength	0.50			Low strength	0.50
Urban land	Not rated		Not rated		Not rated	
ArE:						
Allen	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
	Low strength	0.50			Low strength	0.50
Urban land	Not rated		Not rated		Not rated	
AuA:						
Arkabutla	Moderately suited		Slight		Moderately suited	
	Flooding	0.50			Flooding	0.50
	Low strength	0.50			Low strength	0.50
	Wetness	0.50			Wetness	0.50
Ketona	Poorly suited		Slight		Poorly suited	
	Ponding	1.00			Ponding	1.00
	Wetness	1.00			Wetness	1.00
	Flooding	0.50			Flooding	0.50
	Low strength	0.50			Low strength	0.50
BoD:						
Bodine	Moderately suited		Moderate		Moderately suited	
	Slope	0.50	Slope/erodibility	0.50	Slope	0.50
	Rock fragments	0.50			Rock fragments	0.50

Log Landings, Hazard of Erosion, and Suitability for Roads on Forestland—Continued

Map symbol and soil name	Suitability for log landings: Rating class and limiting features	Value	Hazard of erosion on roads and trails: Rating class and limiting features	Value	Suitability for roads (natural surface): Rating class and limiting features	Value
BoE:						
Bodine	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
	Rock fragments	0.50			Rock fragments	0.50
BoF:						
Bodine	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
	Rock fragments	0.50			Rock fragments	0.50
CaA:						
Capshaw	Moderately suited		Slight		Moderately suited	
	Low strength	0.50			Low strength	0.50
Ketona	Poorly suited		Slight		Poorly suited	
	Ponding	1.00			Ponding	1.00
	Wetness	1.00			Wetness	1.00
	Low strength	0.50			Low strength	0.50
Guthrie	Poorly suited		Slight		Poorly suited	
	Wetness	1.00			Wetness	1.00
	Ponding	0.50			Ponding	0.50
	Low strength	0.50			Low strength	0.50
CaB:						
Capshaw	Moderately suited		Moderate		Moderately suited	
	Low strength	0.50	Slope/erodibility	0.50	Low strength	0.50
Ketona	Poorly suited		Slight		Poorly suited	
	Ponding	1.00			Ponding	1.00
	Wetness	1.00			Wetness	1.00
	Low strength	0.50			Low strength	0.50
Guthrie	Poorly suited		Slight		Poorly suited	
	Wetness	1.00			Wetness	1.00
	Ponding	0.50			Ponding	0.50
	Low strength	0.50			Low strength	0.50
CkE:						
Cataska	Poorly suited		Moderate		Poorly suited	
	Slope	1.00	Slope/erodibility	0.50	Slope	1.00
	Rock fragments	0.50			Rock fragments	0.50
CkF:						
Cataska	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
	Rock fragments	0.50			Rock fragments	0.50
CkG:						
Cataska	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
	Rock fragments	0.50			Rock fragments	0.50
CnA:						
Chenneby	Moderately suited		Slight		Moderately suited	
	Flooding	0.50			Flooding	0.50
	Low strength	0.50			Low strength	0.50
	Wetness	0.50			Wetness	0.50

Log Landings, Hazard of Erosion, and Suitability for Roads on Forestland—Continued

Map symbol and soil name	Suitability for log landings		Hazard of erosion on roads and trails		Suitability for roads (natural surface)	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Ketona	Poorly suited		Slight		Poorly suited	
	Ponding	1.00			Ponding	1.00
	Wetness	1.00			Wetness	1.00
	Flooding	0.50			Flooding	0.50
	Low strength	0.50			Low strength	0.50
CoA:						
Chenneby	Moderately suited		Slight		Moderately suited	
	Flooding	0.50			Flooding	0.50
	Low strength	0.50			Low strength	0.50
	Wetness	0.50			Wetness	0.50
Urban land	Not rated		Not rated		Not rated	
Ketona	Poorly suited		Slight		Poorly suited	
	Ponding	1.00			Ponding	1.00
	Wetness	1.00			Wetness	1.00
	Flooding	0.50			Flooding	0.50
	Low strength	0.50			Low strength	0.50
CrE:						
Cheoah	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
Edneytown	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
CsC:						
Conasauga	Moderately suited		Moderate		Moderately suited	
	Slope	0.50	Slope/erodibility	0.50	Slope	0.50
	Low strength	0.50			Low strength	0.50
CuC:						
Conasauga	Moderately suited		Moderate		Moderately suited	
	Low strength	0.50	Slope/erodibility	0.50	Low strength	0.50
	Slope	0.50			Slope	0.50
Urban land	Not rated		Not rated		Not rated	
CvB:						
Craigsville	Moderately suited		Slight		Moderately suited	
	Flooding	0.50			Flooding	0.50
CxB:						
Cunningham	Moderately suited		Moderate		Moderately suited	
	Low strength	0.50	Slope/erodibility	0.50	Low strength	0.50
CxD:						
Cunningham	Moderately suited		Severe		Moderately suited	
	Slope	0.50	Slope/erodibility	0.95	Slope	0.50
	Low strength	0.50			Low strength	0.50
CxE:						
Cunningham	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
	Low strength	0.50			Low strength	0.50

Log Landings, Hazard of Erosion, and Suitability for Roads on Forestland—Continued

Map symbol and soil name	Suitability for log landings: Rating class and limiting features	Value	Hazard of erosion on roads and trails: Rating class and limiting features	Value	Suitability for roads (natural surface): Rating class and limiting features	Value
CxF:						
Cunningham	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
	Low strength	0.50			Low strength	0.50
DeB:						
Dewey	Moderately suited		Moderate		Moderately suited	
	Low strength	0.50	Slope/erodibility	0.50	Low strength	0.50
DeD:						
Dewey	Moderately suited		Severe		Moderately suited	
	Slope	0.50	Slope/erodibility	0.95	Slope	0.50
	Low strength	0.50			Low strength	0.50
DoA:						
Docena	Moderately suited		Slight		Moderately suited	
	Flooding	0.50			Flooding	0.50
	Low strength	0.50			Low strength	0.50
	Wetness	0.50			Wetness	0.50
Ketona	Poorly suited		Slight		Poorly suited	
	Ponding	1.00			Ponding	1.00
	Wetness	1.00			Wetness	1.00
	Flooding	0.50			Flooding	0.50
	Low strength	0.50			Low strength	0.50
DsB:						
Docena	Moderately suited		Moderate		Moderately suited	
	Low strength	0.50	Slope/erodibility	0.50	Low strength	0.50
	Wetness	0.50			Wetness	0.50
Conasauga	Moderately suited		Moderate		Moderately suited	
	Low strength	0.50	Slope/erodibility	0.50	Low strength	0.50
Ketona	Poorly suited		Slight		Poorly suited	
	Ponding	1.00			Ponding	1.00
	Wetness	1.00			Wetness	1.00
	Low strength	0.50			Low strength	0.50
Du:						
Dumps	Not rated		Not rated		Not rated	
EdF:						
Edneytown	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
	Rock fragments	0.50			Rock fragments	0.50
EdG:						
Edneytown	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
	Rock fragments	0.50			Rock fragments	0.50
EnB:						
Enders	Moderately suited		Moderate		Moderately suited	
	Low strength	0.50	Slope/erodibility	0.50	Low strength	0.50
EnD:						
Enders	Moderately suited		Severe		Moderately suited	
	Slope	0.50	Slope/erodibility	0.95	Slope	0.50
	Low strength	0.50			Low strength	0.50

Log Landings, Hazard of Erosion, and Suitability for Roads on Forestland—Continued

Map symbol and soil name	Suitability for log landings: Rating class and limiting features	Value	Hazard of erosion on roads and trails: Rating class and limiting features	Value	Suitability for roads (natural surface): Rating class and limiting features	Value
EuC:						
Enders	Moderately suited		Severe		Moderately suited	
	Slope	0.50	Slope/erodibility	0.95	Slope	0.50
	Low strength	0.50			Low strength	0.50
Urban land	Not rated		Not rated		Not rated	
FtB:						
Fullerton	Well suited		Moderate		Well suited	
			Slope/erodibility	0.50		
FtD:						
Fullerton	Moderately suited		Severe		Moderately suited	
	Slope	0.50	Slope/erodibility	0.95	Slope	0.50
FtE:						
Fullerton	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
FtF:						
Fullerton	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
FuE:						
Fullerton	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
Urban land	Not rated		Not rated		Not rated	
GrA:						
Guthrie	Poorly suited		Slight		Poorly suited	
	Wetness	1.00			Wetness	1.00
	Ponding	0.50			Ponding	0.50
	Flooding	0.50			Flooding	0.50
	Low strength	0.50			Low strength	0.50
HcB:						
Hanceville	Moderately suited		Moderate		Moderately suited	
	Low strength	0.50	Slope/erodibility	0.50	Low strength	0.50
HcD:						
Hanceville	Moderately suited		Severe		Moderately suited	
	Slope	0.50	Slope/erodibility	0.95	Slope	0.50
	Low strength	0.50			Low strength	0.50
HcE:						
Hanceville	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
	Low strength	0.50			Low strength	0.50
HnC:						
Hanceville	Moderately suited		Severe		Moderately suited	
	Slope	0.50	Slope/erodibility	0.95	Slope	0.50
	Low strength	0.50			Low strength	0.50
Urban land	Not rated		Not rated		Not rated	

Log Landings, Hazard of Erosion, and Suitability for Roads on Forestland—Continued

Map symbol and soil name	Suitability for log landings: Rating class and limiting features	Value	Hazard of erosion on roads and trails: Rating class and limiting features	Value	Suitability for roads (natural surface): Rating class and limiting features	Value
HrF:						
Hector	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
Townley	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
	Low strength	0.50			Low strength	0.50
Rock outcrop	Not rated		Not rated		Not rated	
HsB:						
Holston	Well suited		Moderate		Well suited	
			Slope/erodibility	0.50		
HsD:						
Holston	Moderately suited		Severe		Moderately suited	
	Slope	0.50	Slope/erodibility	0.95	Slope	0.50
JfF:						
Jefferson	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
	Sandiness	0.50			Sandiness	0.50
JfG:						
Jefferson	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
	Sandiness	0.50			Sandiness	0.50
	Rock fragments	0.50			Rock fragments	0.50
JsE:						
Junaluska	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
JsF:						
Junaluska	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
JsG:						
Junaluska	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
JtE:						
Junaluska	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
Tsali	Poorly suited		Moderate		Poorly suited	
	Slope	1.00	Slope/erodibility	0.50	Slope	1.00
	Rock fragments	0.50			Rock fragments	0.50
JtF:						
Junaluska	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
Tsali	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
	Rock fragments	0.50			Rock fragments	0.50

Log Landings, Hazard of Erosion, and Suitability for Roads on Forestland—Continued

Map symbol and soil name	Suitability for log landings: Rating class and limiting features	Value	Hazard of erosion on roads and trails: Rating class and limiting features	Value	Suitability for roads (natural surface): Rating class and limiting features	Value
KtA:						
Ketona	Poorly suited		Slight		Poorly suited	
	Ponding	1.00			Ponding	1.00
	Wetness	1.00			Wetness	1.00
	Flooding	0.50			Flooding	0.50
	Low strength	0.50			Low strength	0.50
LyE:						
Lily	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
	Rock fragments	0.50			Rock fragments	0.50
MnC:						
Minvale	Moderately suited		Severe		Moderately suited	
	Slope	0.50	Slope/erodibility	0.95	Slope	0.50
	Low strength	0.50			Low strength	0.50
Urban land	Not rated		Not rated		Not rated	
MoF:						
Montevallo	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
	Rock fragments	0.50			Rock fragments	0.50
MtD:						
Montevallo	Moderately suited		Moderate		Moderately suited	
	Slope	0.50	Slope/erodibility	0.50	Slope	0.50
	Rock fragments	0.50			Rock fragments	0.50
Townley	Moderately suited		Severe		Moderately suited	
	Slope	0.50	Slope/erodibility	0.95	Slope	0.50
	Low strength	0.50			Low strength	0.50
MtE:						
Montevallo	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
	Rock fragments	0.50			Rock fragments	0.50
Townley	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
	Low strength	0.50			Low strength	0.50
MuE:						
Montevallo	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
	Rock fragments	0.50			Rock fragments	0.50
Urban land	Not rated		Not rated		Not rated	
NaD:						
Nauvoo	Moderately suited		Severe		Moderately suited	
	Slope	0.50	Slope/erodibility	0.95	Slope	0.50
NaE:						
Nauvoo	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00

Log Landings, Hazard of Erosion, and Suitability for Roads on Forestland—Continued

Map symbol and soil name	Suitability for log landings: Rating class and limiting features	Value	Hazard of erosion on roads and trails: Rating class and limiting features	Value	Suitability for roads (natural surface): Rating class and limiting features	Value
NeB:						
Nella	Well suited		Slight		Well suited	
NeD:						
Nella	Moderately suited		Moderate		Moderately suited	
	Slope	0.50	Slope/erodibility	0.50	Slope	0.50
NeE:						
Nella	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
NeF:						
Nella	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
NtF:						
Nella	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
	Rock fragments	0.50			Rock fragments	0.50
Hector	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
	Rock fragments	0.50			Rock fragments	0.50
Townley	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
	Rock fragments	0.50			Rock fragments	0.50
	Low strength	0.50			Low strength	0.50
PaE:						
Panama	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
PaF:						
Panama	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
PcD:						
Pigeonroost	Moderately suited		Severe		Moderately suited	
	Slope	0.50	Slope/erodibility	0.95	Slope	0.50
Cheoah	Moderately suited		Severe		Moderately suited	
	Slope	0.50	Slope/erodibility	0.95	Slope	0.50
Qu:						
Pits, quarries	Not rated		Not rated		Not rated	
Rk:						
Rock outcrop	Not rated		Not rated		Not rated	
SaA:						
Sequatchie	Moderately suited		Slight		Moderately suited	
	Flooding	0.50			Flooding	0.50
	Low strength	0.50			Low strength	0.50
SaB:						
Sequatchie	Moderately suited		Moderate		Moderately suited	
	Low strength	0.50	Slope/erodibility	0.50	Low strength	0.50

Log Landings, Hazard of Erosion, and Suitability for Roads on Forestland—Continued

Map symbol and soil name	Suitability for log landings		Hazard of erosion on roads and trails		Suitability for roads (natural surface)	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
ScB:						
Shack	Moderately suited		Moderate		Moderately suited	
	Wetness	0.50	Slope/erodibility	0.50	Wetness	0.50
Guthrie	Poorly suited		Slight		Poorly suited	
	Wetness	1.00			Wetness	1.00
	Ponding	0.50			Ponding	0.50
	Low strength	0.50			Low strength	0.50
SdD:						
Shack	Moderately suited		Severe		Moderately suited	
	Slope	0.50	Slope/erodibility	0.95	Slope	0.50
	Wetness	0.50			Wetness	0.50
Bodine	Moderately suited		Moderate		Moderately suited	
	Slope	0.50	Slope/erodibility	0.50	Slope	0.50
	Rock fragments	0.50			Rock fragments	0.50
Minvale	Moderately suited		Severe		Moderately suited	
	Slope	0.50	Slope/erodibility	0.95	Slope	0.50
	Low strength	0.50			Low strength	0.50
SdE:						
Shack	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
	Wetness	0.50			Wetness	0.50
Bodine	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
	Rock fragments	0.50			Rock fragments	0.50
Minvale	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
	Low strength	0.50			Low strength	0.50
SeA:						
Shellbluff	Moderately suited		Slight		Moderately suited	
	Flooding	0.50			Flooding	0.50
	Low strength	0.50			Low strength	0.50
Ketona	Poorly suited		Slight		Poorly suited	
	Ponding	1.00			Ponding	1.00
	Wetness	1.00			Wetness	1.00
	Flooding	0.50			Flooding	0.50
	Low strength	0.50			Low strength	0.50
ShC:						
Shelocta	Moderately suited		Severe		Moderately suited	
	Slope	0.50	Slope/erodibility	0.95	Slope	0.50
	Rock fragments	0.50			Rock fragments	0.50
SpD:						
Sipsey	Moderately suited		Severe		Moderately suited	
	Slope	0.50	Slope/erodibility	0.95	Slope	0.50
SpE:						
Sipsey	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00

Log Landings, Hazard of Erosion, and Suitability for Roads on Forestland—Continued

Map symbol and soil name	Suitability for log landings		Hazard of erosion on roads and trails		Suitability for roads (natural surface)	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
SuB:						
Subligna	Moderately suited		Slight		Moderately suited	
	Flooding	0.50			Flooding	0.50
SxA:						
Suches	Moderately suited		Slight		Moderately suited	
	Flooding	0.50			Flooding	0.50
	Low strength	0.50			Low strength	0.50
TnB:						
Townley	Moderately suited		Moderate		Moderately suited	
	Low strength	0.50	Slope/erodibility	0.50	Low strength	0.50
TnD:						
Townley	Moderately suited		Severe		Moderately suited	
	Slope	0.50	Slope/erodibility	0.95	Slope	0.50
	Low strength	0.50			Low strength	0.50
TnE:						
Townley	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
	Low strength	0.50			Low strength	0.50
TnF:						
Townley	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
	Low strength	0.50			Low strength	0.50
TrC:						
Townley	Moderately suited		Severe		Moderately suited	
	Slope	0.50	Slope/erodibility	0.95	Slope	0.50
	Low strength	0.50			Low strength	0.50
Urban land	Not rated		Not rated		Not rated	
TsE:						
Tsali	Poorly suited		Moderate		Poorly suited	
	Slope	1.00	Slope/erodibility	0.50	Slope	1.00
	Rock fragments	0.50			Rock fragments	0.50
TsF:						
Tsali	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
	Rock fragments	0.50			Rock fragments	0.50
TsG:						
Tsali	Poorly suited		Severe		Poorly suited	
	Slope	1.00	Slope/erodibility	0.95	Slope	1.00
	Rock fragments	0.50			Rock fragments	0.50
Uc:						
Ultic Udarents, channery	Not rated		Not rated		Not rated	
Ug:						
Ultic Udarents, gravelly	Not rated		Not rated		Not rated	

Log Landings, Hazard of Erosion, and Suitability for Roads on Forestland—Continued

Map symbol and soil name	Suitability for log landings: Rating class and limiting features	Value	Hazard of erosion on roads and trails: Rating class and limiting features	Value	Suitability for roads (natural surface): Rating class and limiting features	Value
UrC:						
Urban land	Not rated		Not rated		Not rated	
WaA:						
Wax	Moderately suited		Slight		Moderately suited	
	Flooding	0.50			Flooding	0.50
Guthrie	Poorly suited		Slight		Poorly suited	
	Wetness	1.00			Wetness	1.00
	Ponding	0.50			Ponding	0.50
	Flooding	0.50			Flooding	0.50
	Low strength	0.50			Low strength	0.50
WaB:						
Wax	Well suited		Moderate		Well suited	
			Slope/erodibility	0.50		
WnB:						
Waynesboro	Well suited		Moderate		Well suited	
			Slope/erodibility	0.50		
WnD:						
Waynesboro	Moderately suited		Severe		Moderately suited	
	Slope	0.50	Slope/erodibility	0.95	Slope	0.50
WsC:						
Waynesboro	Moderately suited		Severe		Moderately suited	
	Slope	0.50	Slope/erodibility	0.95	Slope	0.50
Urban land	Not rated		Not rated		Not rated	
WtA:						
Whitwell	Moderately suited		Slight		Moderately suited	
	Flooding	0.50			Flooding	0.50
	Low strength	0.50			Low strength	0.50
	Wetness	0.50			Wetness	0.50
Guthrie	Poorly suited		Slight		Poorly suited	
	Wetness	1.00			Wetness	1.00
	Ponding	0.50			Ponding	0.50
	Flooding	0.50			Flooding	0.50
	Low strength	0.50			Low strength	0.50
Ketona	Poorly suited		Slight		Poorly suited	
	Ponding	1.00			Ponding	1.00
	Wetness	1.00			Wetness	1.00
	Flooding	0.50			Flooding	0.50
	Low strength	0.50			Low strength	0.50
WtB:						
Whitwell	Moderately suited		Moderate		Moderately suited	
	Low strength	0.50	Slope/erodibility	0.50	Low strength	0.50
	Wetness	0.50			Wetness	0.50

Log Landings, Hazard of Erosion, and Suitability for Roads on Forestland—Continued

Map symbol and soil name	Suitability for log landings		Hazard of erosion on roads and trails		Suitability for roads (natural surface)	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
WuA:						
Whitwell	Moderately suited		Slight		Moderately suited	
	Flooding	0.50			Flooding	0.50
	Low strength	0.50			Low strength	0.50
	Wetness	0.50			Wetness	0.50
Urban land	Not rated		Not rated		Not rated	
Ketona	Poorly suited		Slight		Poorly suited	
	Ponding	1.00			Ponding	1.00
	Wetness	1.00			Wetness	1.00
	Flooding	0.50			Flooding	0.50
	Low strength	0.50			Low strength	0.50

Forestland Planting and Harvesting

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Suitability for hand planting: Rating class and limiting features	Value	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value
AbB:						
Albertville	Moderately suited		Poorly suited		Moderately suited	
	Stickiness; high plasticity index	0.50	Rock fragments	0.75	Low strength	0.50
	Rock fragments	0.50	Stickiness; high plasticity index	0.50		
AbD:						
Albertville	Moderately suited		Poorly suited		Moderately suited	
	Stickiness; high plasticity index	0.50	Rock fragments	0.75	Low strength	0.50
	Rock fragments	0.50	Slope	0.50		
			Stickiness; high plasticity index	0.50		
AnB:						
Allen	Well suited		Well suited		Moderately suited	
					Low strength	0.50
AnD:						
Allen	Well suited		Moderately suited		Moderately suited	
			Slope	0.50	Low strength	0.50
AnE:						
Allen	Well suited		Poorly suited		Moderately suited	
			Slope	0.75	Low strength	0.50
					Slope	0.50
ArC:						
Allen	Well suited		Moderately suited		Moderately suited	
			Slope	0.50	Low strength	0.50
Urban land	Not rated		Not rated		Not rated	
ArE:						
Allen	Well suited		Poorly suited		Moderately suited	
			Slope	0.75	Low strength	0.50
					Slope	0.50
Urban land	Not rated		Not rated		Not rated	
AuA:						
Arkabutla	Well suited		Well suited		Moderately suited	
					Low strength	0.50
Ketona	Moderately suited		Moderately suited		Moderately suited	
	Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50
BoD:						
Bodine	Poorly suited		Unsuited		Moderately suited	
	Rock fragments	0.75	Rock fragments	1.00	Rock fragments	0.50
			Slope	0.50		

Forestland Planting and Harvesting—Continued

Map symbol and soil name	Suitability for hand planting		Suitability for mechanical planting		Suitability for use of harvesting equipment	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
BoE:						
Bodine	Poorly suited		Unsuited		Moderately suited	
	Rock fragments	0.75	Rock fragments	1.00	Rock fragments	0.50
			Slope	0.75	Slope	0.50
BoF:						
Bodine	Poorly suited		Unsuited		Poorly suited	
	Rock fragments	0.75	Slope	1.00	Slope	1.00
	Slope	0.50	Rock fragments	1.00	Rock fragments	0.50
CaA:						
Capshaw	Moderately suited		Moderately suited		Moderately suited	
	Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50
Ketona	Moderately suited		Moderately suited		Moderately suited	
	Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50
Guthrie	Well suited		Well suited		Moderately suited	
					Low strength	0.50
CaB:						
Capshaw	Moderately suited		Moderately suited		Moderately suited	
	Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50
Ketona	Moderately suited		Moderately suited		Moderately suited	
	Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50
Guthrie	Well suited		Well suited		Moderately suited	
					Low strength	0.50
CkE:						
Cataska	Poorly suited		Unsuited		Moderately suited	
	Rock fragments	0.75	Rock fragments	1.00	Rock fragments	0.50
			Slope	0.50		
CkF:						
Cataska	Poorly suited		Unsuited		Moderately suited	
	Rock fragments	0.75	Slope	1.00	Slope	0.50
	Slope	0.50	Rock fragments	1.00	Rock fragments	0.50
CkG:						
Cataska	Poorly suited		Unsuited		Poorly suited	
	Rock fragments	0.75	Slope	1.00	Slope	1.00
	Slope	0.50	Rock fragments	1.00	Rock fragments	0.50
CnA:						
Chenneby	Well suited		Well suited		Moderately suited	
					Low strength	0.50
Ketona	Moderately suited		Moderately suited		Moderately suited	
	Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50

Forestland Planting and Harvesting—Continued

Map symbol and soil name	Suitability for hand planting		Suitability for mechanical planting		Suitability for use of harvesting equipment	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
CoA:						
Chenneby	Well suited		Well suited		Moderately suited	
					Low strength	0.50
Urban land	Not rated		Not rated		Not rated	
Ketona	Moderately suited		Moderately suited		Moderately suited	
	Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50
CrE:						
Cheoah	Moderately suited		Poorly suited		Moderately suited	
	Rock fragments	0.50	Rock fragments	0.75	Slope	0.50
			Slope	0.75		
Edneytown	Moderately suited		Poorly suited		Moderately suited	
	Rock fragments	0.50	Slope	0.75	Slope	0.50
			Rock fragments	0.75		
CsC:						
Conasauga	Moderately suited		Moderately suited		Moderately suited	
	Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50
	Rock fragments	0.50	Rock fragments	0.50		
			Slope	0.50		
CuC:						
Conasauga	Moderately suited		Moderately suited		Moderately suited	
	Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50
	Rock fragments	0.50	Rock fragments	0.50		
			Slope	0.50		
Urban land	Not rated		Not rated		Not rated	
CvB:						
Craigsville	Moderately suited		Unsuited		Well suited	
	Rock fragments	0.50	Rock fragments	1.00		
CxB:						
Cunningham	Moderately suited		Poorly suited		Moderately suited	
	Stickiness; high plasticity index	0.50	Rock fragments	0.75	Low strength	0.50
	Rock fragments	0.50	Stickiness; high plasticity index	0.50		
CxD:						
Cunningham	Moderately suited		Poorly suited		Moderately suited	
	Stickiness; high plasticity index	0.50	Rock fragments	0.75	Low strength	0.50
	Rock fragments	0.50	Slope	0.50		
			Stickiness; high plasticity index	0.50		

Forestland Planting and Harvesting—Continued

Map symbol and soil name	Suitability for hand planting: Rating class and limiting features	Value	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value
CxE:						
Cunningham	Moderately suited		Poorly suited		Moderately suited	
	Stickiness; high plasticity index	0.50	Slope	0.75	Low strength	0.50
	Rock fragments	0.50	Rock fragments	0.75	Slope	0.50
			Stickiness; high plasticity index	0.50		
CxF:						
Cunningham	Moderately suited		Unsuited		Poorly suited	
	Slope	0.50	Slope	1.00	Slope	1.00
	Stickiness; high plasticity index	0.50	Rock fragments	0.75	Low strength	0.50
	Rock fragments	0.50	Stickiness; high plasticity index	0.50		
DeB:						
Dewey	Well suited		Well suited		Moderately suited	
					Low strength	0.50
DeD:						
Dewey	Well suited		Moderately suited		Moderately suited	
			Slope	0.50	Low strength	0.50
DoA:						
Docena	Well suited		Well suited		Moderately suited	
					Low strength	0.50
Ketona	Moderately suited		Moderately suited		Moderately suited	
	Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50
DsB:						
Docena	Moderately suited		Poorly suited		Moderately suited	
	Rock fragments	0.50	Rock fragments	0.75	Low strength	0.50
Conasauga	Moderately suited		Moderately suited		Moderately suited	
	Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50
	Rock fragments	0.50	Rock fragments	0.50		
Ketona	Moderately suited		Moderately suited		Moderately suited	
	Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50
Du:						
Dumps	Not rated		Not rated		Not rated	
EdF:						
Edneytown	Poorly suited		Unsuited		Moderately suited	
	Rock fragments	0.75	Slope	1.00	Slope	0.50
	Slope	0.50	Rock fragments	1.00	Rock fragments	0.50
EdG:						
Edneytown	Poorly suited		Unsuited		Poorly suited	
	Rock fragments	0.75	Slope	1.00	Slope	1.00
	Slope	0.50	Rock fragments	1.00	Rock fragments	0.50

Forestland Planting and Harvesting—Continued

Map symbol and soil name	Suitability for hand planting: Rating class and limiting features	Value	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value
EnB:						
Enders	Poorly suited		Poorly suited		Moderately suited	
	Stickiness; high plasticity index	0.75	Rock fragments	0.75	Low strength	0.50
	Rock fragments	0.50	Stickiness; high plasticity index	0.75		
EnD:						
Enders	Poorly suited		Poorly suited		Moderately suited	
	Stickiness; high plasticity index	0.75	Rock fragments	0.75	Low strength	0.50
	Rock fragments	0.50	Stickiness; high plasticity index	0.75		
			Slope	0.50		
EuC:						
Enders	Poorly suited		Poorly suited		Moderately suited	
	Stickiness; high plasticity index	0.75	Rock fragments	0.75	Low strength	0.50
	Rock fragments	0.50	Stickiness; high plasticity index	0.75		
			Slope	0.50		
Urban land	Not rated		Not rated		Not rated	
FtB:						
Fullerton	Moderately suited		Moderately suited		Well suited	
	Stickiness; high plasticity index	0.50	Rock fragments	0.50		
			Stickiness; high plasticity index	0.50		
FtD:						
Fullerton	Moderately suited		Moderately suited		Well suited	
	Stickiness; high plasticity index	0.50	Rock fragments	0.50		
			Slope	0.50		
			Stickiness; high plasticity index	0.50		
FtE:						
Fullerton	Moderately suited		Poorly suited		Moderately suited	
	Stickiness; high plasticity index	0.50	Slope	0.75	Slope	0.50
			Rock fragments	0.50		
			Stickiness; high plasticity index	0.50		
FtF:						
Fullerton	Moderately suited		Unsuited		Poorly suited	
	Slope	0.50	Slope	1.00	Slope	1.00
	Stickiness; high plasticity index	0.50	Rock fragments	0.50		
			Stickiness; high plasticity index	0.50		
FuE:						
Fullerton	Moderately suited		Poorly suited		Moderately suited	
	Stickiness; high plasticity index	0.50	Slope	0.75	Slope	0.50
			Rock fragments	0.50		
			Stickiness; high plasticity index	0.50		
Urban land	Not rated		Not rated		Not rated	

Forestland Planting and Harvesting—Continued

Map symbol and soil name	Suitability for hand planting: Rating class and limiting features	Value	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value
GrA:						
Guthrie	Well suited		Well suited		Moderately suited	
					Low strength	0.50
HcB:						
Hanceville	Moderately suited		Moderately suited		Moderately suited	
	Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50
HcD:						
Hanceville	Moderately suited		Moderately suited		Moderately suited	
	Stickiness; high plasticity index	0.50	Slope	0.50	Low strength	0.50
			Stickiness; high plasticity index	0.50		
HcE:						
Hanceville	Moderately suited		Poorly suited		Moderately suited	
	Stickiness; high plasticity index	0.50	Slope	0.75	Low strength	0.50
			Stickiness; high plasticity index	0.50	Slope	0.50
HnC:						
Hanceville	Moderately suited		Moderately suited		Moderately suited	
	Stickiness; high plasticity index	0.50	Slope	0.50	Low strength	0.50
			Stickiness; high plasticity index	0.50		
Urban land	Not rated		Not rated		Not rated	
HrF:						
Hector	Well suited		Poorly suited		Moderately suited	
			Slope	0.75	Slope	0.50
			Rock fragments	0.50		
Townley	Moderately suited		Poorly suited		Moderately suited	
	Rock fragments	0.50	Slope	0.75	Low strength	0.50
	Stickiness; high plasticity index	0.50	Rock fragments	0.75	Slope	0.50
			Stickiness; high plasticity index	0.50		
Rock outcrop	Not rated		Not rated		Not rated	
HsB:						
Holston	Well suited		Well suited		Well suited	
HsD:						
Holston	Well suited		Moderately suited		Well suited	
			Slope	0.50		
JfF:						
Jefferson	Moderately suited		Unsuited		Moderately suited	
	Slope	0.50	Slope	1.00	Slope	0.50
			Rock fragments	0.50	Sandiness	0.50

Forestland Planting and Harvesting—Continued

Map symbol and soil name	Suitability for hand planting		Suitability for mechanical planting		Suitability for use of harvesting equipment	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
JfG:						
Jefferson-----------	Moderately suited		Unsuited		Poorly suited	
	Slope	0.50	Slope	1.00	Slope	1.00
	Rock fragments	0.50	Rock fragments	0.75	Sandiness	0.50
					Rock fragments	0.50
JsE:						
Junaluska-----------	Moderately suited		Poorly suited		Well suited	
	Rock fragments	0.50	Rock fragments	0.75		
			Slope	0.50		
JsF:						
Junaluska-----------	Moderately suited		Unsuited		Moderately suited	
	Rock fragments	0.50	Slope	1.00	Slope	0.50
	Slope	0.50	Rock fragments	0.75		
JsG:						
Junaluska-----------	Moderately suited		Unsuited		Poorly suited	
	Rock fragments	0.50	Slope	1.00	Slope	1.00
	Slope	0.50	Rock fragments	0.75		
JtE:						
Junaluska-----------	Moderately suited		Poorly suited		Well suited	
	Rock fragments	0.50	Rock fragments	0.75		
			Slope	0.50		
Tsali---------------	Poorly suited		Unsuited		Moderately suited	
	Rock fragments	0.75	Rock fragments	1.00	Rock fragments	0.50
			Slope	0.50		
JtF:						
Junaluska-----------	Moderately suited		Unsuited		Moderately suited	
	Rock fragments	0.50	Slope	1.00	Slope	0.50
	Slope	0.50	Rock fragments	0.75		
Tsali---------------	Poorly suited		Unsuited		Moderately suited	
	Rock fragments	0.75	Slope	1.00	Slope	0.50
	Slope	0.50	Rock fragments	1.00	Rock fragments	0.50
KtA:						
Ketona--------------	Moderately suited		Moderately suited		Moderately suited	
	Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50
LyE:						
Lily----------------	Poorly suited		Unsuited		Moderately suited	
	Rock fragments	0.75	Rock fragments	1.00	Rock fragments	0.50
			Slope	0.50		
MnC:						
Minvale-------------	Well suited		Moderately suited		Moderately suited	
			Rock fragments	0.50	Low strength	0.50
			Slope	0.50		
Urban land----------	Not rated		Not rated		Not rated	

Forestland Planting and Harvesting—Continued

Map symbol and soil name	Suitability for hand planting: Rating class and limiting features	Value	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value
MoF:						
Montevallo----------	Unsuited		Unsuited		Poorly suited	
	Restrictive layer	1.00	Slope	1.00	Slope	1.00
	Rock fragments	0.75	Rock fragments	1.00	Rock fragments	0.50
	Slope	0.50	Restrictive layer	0.50		
MtD:						
Montevallo----------	Unsuited		Unsuited		Moderately suited	
	Restrictive layer	1.00	Rock fragments	1.00	Rock fragments	0.50
	Rock fragments	0.75	Slope	0.50		
			Restrictive layer	0.50		
Townley-------------	Moderately suited		Poorly suited		Moderately suited	
	Rock fragments	0.50	Rock fragments	0.75	Low strength	0.50
	Stickiness; high plasticity index	0.50	Slope	0.50		
			Stickiness; high plasticity index	0.50		
MtE:						
Montevallo----------	Unsuited		Unsuited		Moderately suited	
	Restrictive layer	1.00	Rock fragments	1.00	Rock fragments	0.50
	Rock fragments	0.75	Slope	0.75	Slope	0.50
			Restrictive layer	0.50		
Townley-------------	Moderately suited		Poorly suited		Moderately suited	
	Rock fragments	0.50	Slope	0.75	Low strength	0.50
	Stickiness; high plasticity index	0.50	Rock fragments	0.75	Slope	0.50
			Stickiness; high plasticity index	0.50		
MuE:						
Montevallo----------	Unsuited		Unsuited		Moderately suited	
	Restrictive layer	1.00	Rock fragments	1.00	Rock fragments	0.50
	Rock fragments	0.75	Slope	0.75		
			Restrictive layer	0.50		
Urban land----------	Not rated		Not rated		Not rated	
NaD:						
Nauvoo--------------	Well suited		Moderately suited		Well suited	
			Slope	0.50		
NaE:						
Nauvoo--------------	Well suited		Poorly suited		Moderately suited	
			Slope	0.75	Slope	0.50
NeB:						
Nella---------------	Well suited		Moderately suited		Well suited	
			Rock fragments	0.50		
NeD:						
Nella---------------	Well suited		Moderately suited		Well suited	
			Rock fragments	0.50		
			Slope	0.50		

Forestland Planting and Harvesting—Continued

Map symbol and soil name	Suitability for hand planting: Rating class and limiting features	Value	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value
NeE:						
Nella	Well suited		Poorly suited		Moderately suited	
			Slope	0.75	Slope	0.50
			Rock fragments	0.50		
NeF:						
Nella	Moderately suited		Unsuited		Poorly suited	
	Slope	0.50	Slope	1.00	Slope	1.00
			Rock fragments	0.50		
NtF:						
Nella	Poorly suited		Unsuited		Poorly suited	
	Rock fragments	0.75	Slope	1.00	Slope	1.00
	Slope	0.50	Rock fragments	1.00	Rock fragments	0.50
Hector	Poorly suited		Unsuited		Poorly suited	
	Rock fragments	0.75	Slope	1.00	Slope	1.00
	Slope	0.50	Rock fragments	1.00	Rock fragments	0.50
Townley	Poorly suited		Unsuited		Poorly suited	
	Rock fragments	0.75	Slope	1.00	Slope	1.00
	Slope	0.50	Rock fragments	1.00	Rock fragments	0.50
	Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50
PaE:						
Panama	Well suited		Poorly suited		Moderately suited	
			Slope	0.75	Slope	0.50
			Rock fragments	0.50		
PaF:						
Panama	Moderately suited		Unsuited		Poorly suited	
	Slope	0.50	Slope	1.00	Slope	1.00
			Rock fragments	0.50		
PcD:						
Pigeonroost	Well suited		Moderately suited		Well suited	
			Slope	0.50		
Cheoah	Moderately suited		Poorly suited		Well suited	
	Rock fragments	0.50	Rock fragments	0.75		
			Slope	0.50		
Qu:						
Pits, quarries	Not rated		Not rated		Not rated	
Rk:						
Rock outcrop	Not rated		Not rated		Not rated	
SaA:						
Sequatchie	Well suited		Well suited		Moderately suited	
					Low strength	0.50
SaB:						
Sequatchie	Well suited		Well suited		Moderately suited	
					Low strength	0.50

Forestland Planting and Harvesting—Continued

Map symbol and soil name	Suitability for hand planting: Rating class and limiting features	Value	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value
ScB:						
Shack	Well suited		Moderately suited		Well suited	
			Rock fragments	0.50		
Guthrie	Well suited		Well suited		Moderately suited	
					Low strength	0.50
SdD:						
Shack	Well suited		Moderately suited		Well suited	
			Rock fragments	0.50		
			Slope	0.50		
Bodine	Poorly suited		Unsuited		Moderately suited	
	Rock fragments	0.75	Rock fragments	1.00	Rock fragments	0.50
			Slope	0.50		
Minvale	Well suited		Moderately suited		Moderately suited	
			Rock fragments	0.50	Low strength	0.50
			Slope	0.50		
SdE:						
Shack	Well suited		Poorly suited		Moderately suited	
			Slope	0.75	Slope	0.50
			Rock fragments	0.50		
Bodine	Poorly suited		Unsuited		Moderately suited	
	Rock fragments	0.75	Rock fragments	1.00	Rock fragments	0.50
			Slope	0.75	Slope	0.50
Minvale	Well suited		Poorly suited		Moderately suited	
			Slope	0.75	Low strength	0.50
			Rock fragments	0.50	Slope	0.50
SeA:						
Shellbluff	Well suited		Well suited		Moderately suited	
					Low strength	0.50
Ketona	Moderately suited		Moderately suited		Moderately suited	
	Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50
ShC:						
Shelocta	Moderately suited		Poorly suited		Moderately suited	
	Rock fragments	0.50	Rock fragments	0.75	Rock fragments	0.50
			Slope	0.50		
SpD:						
Sipsey	Well suited		Moderately suited		Well suited	
			Slope	0.50		
SpE:						
Sipsey	Well suited		Poorly suited		Moderately suited	
			Slope	0.75	Slope	0.50
SuB:						
Subligna	Moderately suited		Poorly suited		Well suited	
	Rock fragments	0.50	Rock fragments	0.75		
	Sandiness	0.50	Sandiness	0.50		

Forestland Planting and Harvesting—Continued

Map symbol and soil name	Suitability for hand planting: Rating class and limiting features	Value	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value
SxA:						
Suches	Well suited		Well suited		Moderately suited	
					Low strength	0.50
TnB:						
Townley	Moderately suited		Poorly suited		Moderately suited	
	Rock fragments	0.50	Rock fragments	0.75	Low strength	0.50
	Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50		
TnD:						
Townley	Moderately suited		Poorly suited		Moderately suited	
	Rock fragments	0.50	Rock fragments	0.75	Low strength	0.50
	Stickiness; high plasticity index	0.50	Slope	0.50		
			Stickiness; high plasticity index	0.50		
TnE:						
Townley	Moderately suited		Poorly suited		Moderately suited	
	Rock fragments	0.50	Slope	0.75	Low strength	0.50
	Stickiness; high plasticity index	0.50	Rock fragments	0.75	Slope	0.50
			Stickiness; high plasticity index	0.50		
TnF:						
Townley	Moderately suited		Unsuited		Poorly suited	
	Rock fragments	0.50	Slope	1.00	Slope	1.00
	Slope	0.50	Rock fragments	0.75	Low strength	0.50
	Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50		
TrC:						
Townley	Moderately suited		Poorly suited		Moderately suited	
	Rock fragments	0.50	Rock fragments	0.75	Low strength	0.50
	Stickiness; high plasticity index	0.50	Slope	0.50		
			Stickiness; high plasticity index	0.50		
Urban land	Not rated		Not rated		Not rated	
TsE:						
Tsali	Poorly suited		Unsuited		Moderately suited	
	Rock fragments	0.75	Rock fragments	1.00	Rock fragments	0.50
			Slope	0.50		
TsF:						
Tsali	Poorly suited		Unsuited		Moderately suited	
	Rock fragments	0.75	Slope	1.00	Slope	0.50
	Slope	0.50	Rock fragments	1.00	Rock fragments	0.50
TsG:						
Tsali	Poorly suited		Unsuited		Poorly suited	
	Rock fragments	0.75	Slope	1.00	Slope	1.00
	Slope	0.50	Rock fragments	1.00	Rock fragments	0.50

Forestland Planting and Harvesting—Continued

Map symbol and soil name	Suitability for hand planting: Rating class and limiting features	Value	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for use of harvesting equipment: Rating class and limiting features	Value
Uc:						
Ultic Udarents, channery	Not rated		Not rated		Not rated	
Ug:						
Ultic Udarents, gravelly	Not rated		Not rated		Not rated	
UrC:						
Urban land	Not rated		Not rated		Not rated	
WaA:						
Wax	Well suited		Well suited		Well suited	
Guthrie	Well suited		Well suited		Moderately suited	
					Low strength	0.50
WaB:						
Wax	Well suited		Well suited		Well suited	
WnB:						
Waynesboro	Well suited		Well suited		Well suited	
WnD:						
Waynesboro	Well suited		Moderately suited		Well suited	
			Slope	0.50		
WsC:						
Waynesboro	Well suited		Moderately suited		Well suited	
			Slope	0.50		
Urban land	Not rated		Not rated		Not rated	
WtA:						
Whitwell	Well suited		Well suited		Moderately suited	
					Low strength	0.50
Guthrie	Well suited		Well suited		Moderately suited	
					Low strength	0.50
Ketona	Moderately suited		Moderately suited		Moderately suited	
	Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50
WtB:						
Whitwell	Well suited		Well suited		Moderately suited	
					Low strength	0.50

Forestland Planting and Harvesting—Continued

Map symbol and soil name	Suitability for hand planting		Suitability for mechanical planting		Suitability for use of harvesting equipment	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
WuA:						
Whitwell------------	Well suited		Well suited		Moderately suited	
					Low strength	0.50
Urban land----------	Not rated		Not rated		Not rated	
Ketona--------------	Moderately suited		Moderately suited		Moderately suited	
	Stickiness; high plasticity index	0.50	Stickiness; high plasticity index	0.50	Low strength	0.50

Camp Areas and Picnic Areas

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Camp areas		Picnic areas	
	Rating class and limiting features	Value	Rating class and limiting features	Value
AbB:				
Albertville	Somewhat limited		Somewhat limited	
	Slow water movement	0.21	Slow water movement	0.21
AbD:				
Albertville	Somewhat limited		Somewhat limited	
	Slope	0.37	Slope	0.37
	Slow water movement	0.21	Slow water movement	0.21
AnB:				
Allen	Not limited		Not limited	
AnD:				
Allen	Somewhat limited		Somewhat limited	
	Slope	0.37	Slope	0.37
AnE:				
Allen	Very limited		Very limited	
	Slope	1.00	Slope	1.00
ArC:				
Allen	Somewhat limited		Somewhat limited	
	Slope	0.04	Slope	0.04
Urban land	Not Rated		Not Rated	
ArE:				
Allen	Very limited		Very limited	
	Slope	1.00	Slope	1.00
Urban land	Not Rated		Not Rated	
AuA:				
Arkabutla	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	0.99
	Flooding	1.00		
Ketona	Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00
	Flooding	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Slow water movement	0.96
	Slow water movement	0.96		
BoD:				
Bodine	Very limited		Very limited	
	Gravel content	1.00	Gravel content	1.00
	Large stones content	1.00	Large stones content	1.00
	Slope	0.37	Slope	0.37

Camp Areas and Picnic Areas—Continued

Map symbol and soil name	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value
BoE:				
Bodine	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Gravel content	1.00	Gravel content	1.00
	Large stones content	1.00	Large stones content	1.00
BoF:				
Bodine	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Gravel content	1.00	Gravel content	1.00
	Large stones content	1.00	Large stones content	1.00
CaA:				
Capshaw	Somewhat limited		Somewhat limited	
	Slow water movement	0.96	Slow water movement	0.96
Ketona	Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Depth to saturated zone	1.00
	Slow water movement	0.96	Slow water movement	0.96
Guthrie	Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Depth to saturated zone	1.00
	Depth to cemented pan	0.84	Depth to cemented pan	0.84
	Slow water movement	0.21	Slow water movement	0.21
CaB:				
Capshaw	Somewhat limited		Somewhat limited	
	Slow water movement	0.96	Slow water movement	0.96
Ketona	Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Depth to saturated zone	1.00
	Slow water movement	0.96	Slow water movement	0.96
Guthrie	Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Depth to saturated zone	1.00
	Depth to cemented pan	0.84	Depth to cemented pan	0.84
	Slow water movement	0.21	Slow water movement	0.21
CkE:				
Cataska	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00
	Gravel content	0.24	Gravel content	0.24
	Large stones content	0.19	Large stones content	0.19

Camp Areas and Picnic Areas—Continued

Map symbol and soil name	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value
CkF:				
Cataska	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00
	Gravel content	0.24	Gravel content	0.24
	Large stones content	0.19	Large stones content	0.19
CkG:				
Cataska	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00
	Gravel content	0.24	Gravel content	0.24
	Large stones content	0.19	Large stones content	0.19
CnA:				
Chenneby	Very limited		Somewhat limited	
	Flooding	1.00	Depth to saturated zone	0.56
	Depth to saturated zone	0.88		
Ketona	Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00
	Flooding	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Slow water movement	0.96
	Slow water movement	0.96		
CoA:				
Chenneby	Very limited		Somewhat limited	
	Flooding	1.00	Depth to saturated zone	0.56
	Depth to saturated zone	0.88		
Urban land	Not Rated		Not Rated	
Ketona	Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00
	Flooding	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Slow water movement	0.96
	Slow water movement	0.96		
CrE:				
Cheoah	Very limited		Very limited	
	Slope	1.00	Slope	1.00
Edneytown	Very limited		Very limited	
	Slope	1.00	Slope	1.00
CsC:				
Conasauga	Somewhat limited		Somewhat limited	
	Slow water movement	0.96	Slow water movement	0.96
	Depth to saturated zone	0.03	Depth to saturated zone	0.02
	Slope	0.01	Slope	0.01

Camp Areas and Picnic Areas—Continued

Map symbol and soil name	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value
CuC:				
Conasauga-----------	Somewhat limited		Somewhat limited	
	Slow water movement	0.96	Slow water movement	0.96
	Depth to saturated zone	0.03	Depth to saturated zone	0.02
Urban land----------	Not Rated		Not Rated	
CvB:				
Craigsville---------	Very limited		Somewhat limited	
	Flooding	1.00	Gravel content	0.22
	Gravel content	0.22		
CxB:				
Cunningham----------	Somewhat limited		Somewhat limited	
	Slow water movement	0.96	Slow water movement	0.96
CxD:				
Cunningham----------	Somewhat limited		Somewhat limited	
	Slow water movement	0.96	Slow water movement	0.96
	Slope	0.37	Slope	0.37
CxE:				
Cunningham----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Slow water movement	0.96	Slow water movement	0.96
CxF:				
Cunningham----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Slow water movement	0.96	Slow water movement	0.96
DeB:				
Dewey---------------	Not limited		Not limited	
DeD:				
Dewey---------------	Somewhat limited		Somewhat limited	
	Slope	0.37	Slope	0.37
DoA:				
Docena--------------	Very limited		Somewhat limited	
	Flooding	1.00	Depth to saturated zone	0.56
	Depth to saturated zone	0.88		
Ketona--------------	Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00
	Flooding	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Slow water movement	0.96
	Slow water movement	0.96		
DsB:				
Docena--------------	Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.88	Depth to saturated zone	0.56
Conasauga-----------	Somewhat limited		Somewhat limited	
	Slow water movement	0.96	Slow water movement	0.96
	Depth to saturated zone	0.03	Depth to saturated zone	0.02

Camp Areas and Picnic Areas—Continued

Map symbol and soil name	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value
Ketona	Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Depth to saturated zone	1.00
	Slow water movement	0.96	Slow water movement	0.96
Du:				
Dumps	Not Rated		Not Rated	
EdF:				
Edneytown	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Large stones content	1.00	Large stones content	1.00
EdG:				
Edneytown	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Large stones content	1.00	Large stones content	1.00
EnB:				
Enders	Very limited		Very limited	
	Slow water movement	1.00	Slow water movement	1.00
EnD:				
Enders	Very limited		Very limited	
	Slow water movement	1.00	Slow water movement	1.00
	Slope	0.37	Slope	0.37
EuC:				
Enders	Very limited		Very limited	
	Slow water movement	1.00	Slow water movement	1.00
	Slope	0.04	Slope	0.04
Urban land	Not Rated		Not Rated	
FtB:				
Fullerton	Somewhat limited		Somewhat limited	
	Gravel content	0.05	Gravel content	0.05
FtD:				
Fullerton	Somewhat limited		Somewhat limited	
	Slope	0.37	Slope	0.37
	Gravel content	0.05	Gravel content	0.05
FtE:				
Fullerton	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Gravel content	0.05	Gravel content	0.05
FtF:				
Fullerton	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Gravel content	0.05	Gravel content	0.05

Camp Areas and Picnic Areas—Continued

Map symbol and soil name	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value
FuE:				
Fullerton	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Gravel content	0.05	Gravel content	0.05
Urban land	Not Rated		Not Rated	
GrA:				
Guthrie	Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00
	Flooding	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Depth to cemented pan	0.84
	Depth to cemented pan	0.84	Slow water movement	0.21
	Slow water movement	0.21		
HcB:				
Hanceville	Not limited		Not limited	
HcD:				
Hanceville	Somewhat limited		Somewhat limited	
	Slope	0.37	Slope	0.37
HcE:				
Hanceville	Very limited		Very limited	
	Slope	1.00	Slope	1.00
HnC:				
Hanceville	Somewhat limited		Somewhat limited	
	Slope	0.04	Slope	0.04
Urban land	Not Rated		Not Rated	
HrF:				
Hector	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00
	Gravel content	0.59	Gravel content	0.59
Townley	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Slow water movement	0.96	Slow water movement	0.96
Rock outcrop	Not Rated		Not Rated	
HsB:				
Holston	Not limited		Not limited	
HsD:				
Holston	Somewhat limited		Somewhat limited	
	Slope	0.37	Slope	0.37
JfF:				
Jefferson	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Gravel content	0.87	Gravel content	0.87

Camp Areas and Picnic Areas—Continued

Map symbol and soil name	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value
JfG:				
Jefferson-----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Large stones content	1.00	Large stones content	1.00
	Gravel content	0.87	Gravel content	0.87
JsE:				
Junaluska-----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
JsF:				
Junaluska-----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
JsG:				
Junaluska-----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
JtE:				
Junaluska-----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
Tsali---------------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00
	Gravel content	0.12	Gravel content	0.12
JtF:				
Junaluska-----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
Tsali---------------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00
	Gravel content	0.12	Gravel content	0.12
KtA:				
Ketona--------------	Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00
	Flooding	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Slow water movement	0.96
	Slow water movement	0.96		
LyE:				
Lily----------------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Large stones content	1.00	Large stones content	1.00
MnC:				
Minvale-------------	Somewhat limited		Somewhat limited	
	Gravel content	0.05	Gravel content	0.05
	Slope	0.04	Slope	0.04
Urban land----------	Not Rated		Not Rated	

Camp Areas and Picnic Areas—Continued

Map symbol and soil name	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value
MoF:				
Montevallo----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00
	Gravel content	0.54	Gravel content	0.54
MtD:				
Montevallo----------	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to bedrock	1.00
	Gravel content	0.54	Gravel content	0.54
	Slope	0.37	Slope	0.37
Townley-------------	Somewhat limited		Somewhat limited	
	Slow water movement	0.96	Slow water movement	0.96
	Slope	0.37	Slope	0.37
MtE:				
Montevallo----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00
	Gravel content	0.54	Gravel content	0.54
Townley-------------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Slow water movement	0.96	Slow water movement	0.96
MuE:				
Montevallo----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00
	Gravel content	0.54	Gravel content	0.54
Urban land----------	Not Rated		Not Rated	
NaD:				
Nauvoo--------------	Somewhat limited		Somewhat limited	
	Slope	0.37	Slope	0.37
NaE:				
Nauvoo--------------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
NeB:				
Nella---------------	Not limited		Not limited	
NeD:				
Nella---------------	Somewhat limited		Somewhat limited	
	Slope	0.37	Slope	0.37
NeE:				
Nella---------------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
NeF:				
Nella---------------	Very limited		Very limited	
	Slope	1.00	Slope	1.00

Camp Areas and Picnic Areas—Continued

Map symbol and soil name	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value
NtF:				
Nella	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Large stones content	1.00	Large stones content	1.00
Hector	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Large stones content	1.00	Large stones content	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00
	Gravel content	0.59	Gravel content	0.59
Townley	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Large stones content	1.00	Large stones content	1.00
	Slow water movement	0.96	Slow water movement	0.96
PaE:				
Panama	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Gravel content	0.92	Gravel content	0.92
PaF:				
Panama	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Gravel content	0.92	Gravel content	0.92
PcD:				
Pigeonroost	Somewhat limited		Somewhat limited	
	Slope	0.16	Slope	0.16
Cheoah	Somewhat limited		Somewhat limited	
	Slope	0.16	Slope	0.16
Qu:				
Pits, quarries	Not Rated		Not Rated	
Rk:				
Rock outcrop	Not Rated		Not Rated	
SaA:				
Sequatchie	Very limited		Not limited	
	Flooding	1.00		
SaB:				
Sequatchie	Not limited		Not limited	
ScB:				
Shack	Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.67	Depth to cemented pan	0.46
	Depth to cemented pan	0.46	Depth to saturated zone	0.35
	Slow water movement	0.21	Slow water movement	0.21
	Gravel content	0.01	Gravel content	0.01

Camp Areas and Picnic Areas—Continued

Map symbol and soil name	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value
Guthrie	Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00
	Ponding	1.00	Depth to saturated zone	1.00
	Depth to cemented pan	0.84	Depth to cemented pan	0.84
	Slow water movement	0.21	Slow water movement	0.21
SdD:				
Shack	Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.67	Depth to cemented pan	0.46
	Depth to cemented pan	0.46	Slope	0.37
	Slope	0.37	Depth to saturated zone	0.35
	Slow water movement	0.21	Slow water movement	0.21
	Gravel content	0.01	Gravel content	0.01
Bodine	Very limited		Very limited	
	Gravel content	1.00	Gravel content	1.00
	Large stones content	1.00	Large stones content	1.00
	Slope	0.37	Slope	0.37
Minvale	Somewhat limited		Somewhat limited	
	Slope	0.37	Slope	0.37
	Gravel content	0.05	Gravel content	0.05
SdE:				
Shack	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Depth to saturated zone	0.67	Depth to cemented pan	0.46
	Depth to cemented pan	0.46	Depth to saturated zone	0.35
	Slow water movement	0.21	Slow water movement	0.21
	Gravel content	0.01	Gravel content	0.01
Bodine	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Gravel content	1.00	Gravel content	1.00
	Large stones content	1.00	Large stones content	1.00
Minvale	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Gravel content	0.05	Gravel content	0.05
SeA:				
Shellbluff	Very limited		Not limited	
	Flooding	1.00		
Ketona	Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00
	Flooding	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Slow water movement	0.96
	Slow water movement	0.96		

Camp Areas and Picnic Areas—Continued

Map symbol and soil name	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value
ShC:				
Shelocta	Somewhat limited		Somewhat limited	
	Slope	0.04	Slope	0.04
	Gravel content	0.01	Gravel content	0.01
SpD:				
Sipsey	Somewhat limited		Somewhat limited	
	Slope	0.16	Slope	0.16
SpE:				
Sipsey	Very limited		Very limited	
	Slope	1.00	Slope	1.00
SuB:				
Subligna	Very limited		Very limited	
	Flooding	1.00	Gravel content	1.00
	Gravel content	1.00		
SxA:				
Suches	Very limited		Not limited	
	Flooding	1.00		
TnB:				
Townley	Somewhat limited		Somewhat limited	
	Slow water movement	0.96	Slow water movement	0.96
TnD:				
Townley	Somewhat limited		Somewhat limited	
	Slow water movement	0.96	Slow water movement	0.96
	Slope	0.37	Slope	0.37
TnE:				
Townley	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Slow water movement	0.96	Slow water movement	0.96
TnF:				
Townley	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Slow water movement	0.96	Slow water movement	0.96
TrC:				
Townley	Somewhat limited		Somewhat limited	
	Slow water movement	0.96	Slow water movement	0.96
	Slope	0.04	Slope	0.04
Urban land	Not Rated		Not Rated	
TsE:				
Tsali	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00
	Gravel content	0.12	Gravel content	0.12
TsF:				
Tsali	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00
	Gravel content	0.12	Gravel content	0.12

Camp Areas and Picnic Areas—Continued

Map symbol and soil name	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value
TsG:				
Tsali----------------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00
	Gravel content	0.12	Gravel content	0.12
Uc:				
Ultic Udarents, channery-----------	Not Rated		Not Rated	
Ug:				
Ultic Udarents, gravelly-----------	Not Rated		Not Rated	
UrC:				
Urban land----------	Not Rated		Not Rated	
WaA:				
Wax-----------------	Very limited		Somewhat limited	
	Flooding	1.00	Depth to cemented pan	0.54
	Depth to cemented pan	0.54	Depth to saturated zone	0.01
	Depth to saturated zone	0.01		
Guthrie-------------	Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00
	Flooding	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Depth to cemented pan	0.84
	Depth to cemented pan	0.84	Slow water movement	0.21
	Slow water movement	0.21		
WaB:				
Wax-----------------	Very limited		Somewhat limited	
	Flooding	1.00	Depth to cemented pan	
	Depth to cemented pan	0.54	Depth to saturated zone	0.01
	Depth to saturated zone	0.01		
WnB:				
Waynesboro----------	Not limited		Not limited	
WnD:				
Waynesboro----------	Somewhat limited		Somewhat limited	
	Slope	0.37	Slope	0.37
WsC:				
Waynesboro----------	Somewhat limited		Somewhat limited	
	Slope	0.04	Slope	0.04
Urban land----------	Not Rated		Not Rated	
WtA:				
Whitwell------------	Very limited		Somewhat limited	
	Flooding	1.00	Depth to saturated zone	
	Depth to saturated zone	0.95		

Camp Areas and Picnic Areas—Continued

Map symbol and soil name	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value
Guthrie	Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00
	Flooding	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Depth to cemented pan	0.84
	Depth to cemented pan	0.84	Slow water movement	0.21
	Slow water movement	0.21		
Ketona	Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00
	Flooding	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Slow water movement	0.96
	Slow water movement	0.96		
WtB:				
Whitwell	Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.95	Depth to saturated zone	0.68
WuA:				
Whitwell	Very limited		Somewhat limited	
	Flooding	1.00	Depth to saturated zone	0.68
	Depth to saturated zone	0.95		
Urban land	Not Rated		Not Rated	
Ketona	Very limited		Very limited	
	Depth to saturated zone	1.00	Ponding	1.00
	Flooding	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Slow water movement	0.96
	Slow water movement	0.96		

Playgrounds and Paths and Trails

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Playgrounds		Paths and Trails	
	Rating class and limiting features	Value	Rating class and limiting features	Value
AbB:				
Albertville---------	Somewhat limited		Not limited	
	Slope	0.50		
	Slow water movement	0.21		
AbD:				
Albertville---------	Very limited		Not limited	
	Slope	1.00		
	Slow water movement	0.21		
AnB:				
Allen---------------	Somewhat limited		Not limited	
	Slope	0.50		
	Gravel content	0.18		
AnD:				
Allen---------------	Very limited		Not limited	
	Slope	1.00		
	Gravel content	0.18		
AnE:				
Allen---------------	Very limited		Somewhat limited	
	Slope	1.00	Slope	0.92
	Gravel content	0.18		
ArC:				
Allen---------------	Very limited		Not limited	
	Slope	1.00		
	Gravel content	0.18		
Urban land----------	Not Rated		Not Rated	
ArE:				
Allen---------------	Very limited		Somewhat limited	
	Slope	1.00	Slope	0.92
	Gravel content	0.18		
Urban land----------	Not Rated		Not Rated	
AuA:				
Arkabutla-----------	Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Depth to saturated zone	0.98
	Flooding	0.60		
Ketona--------------	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00
	Slow water movement	0.96		
	Flooding	0.60		

Playgrounds and Paths and Trails—Continued

Map symbol and soil name	Playgrounds		Paths and Trails	
	Rating class and limiting features	Value	Rating class and limiting features	Value
BoD:				
Bodine	Very limited		Very limited	
	Gravel content	1.00	Large stones content	1.00
	Slope	1.00		
	Large stones content	1.00		
BoE:				
Bodine	Very limited		Very limited	
	Gravel content	1.00	Large stones content	1.00
	Slope	1.00	Slope	0.92
	Large stones content	1.00		
BoF:				
Bodine	Very limited		Very limited	
	Gravel content	1.00	Slope	1.00
	Slope	1.00	Large stones content	1.00
	Large stones content	1.00		
CaA:				
Capshaw	Somewhat limited		Not limited	
	Slow water movement	0.96		
Ketona	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00
	Slow water movement	0.96		
Guthrie	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00
	Gravel content	0.22		
	Slow water movement	0.21		
CaB:				
Capshaw	Somewhat limited		Not limited	
	Slow water movement	0.96		
	Slope	0.50		
Ketona	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00
	Slow water movement	0.96		
Guthrie	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00
	Gravel content	0.22		
	Slow water movement	0.21		

Playgrounds and Paths and Trails—Continued

Map symbol and soil name	Playgrounds: Rating class and limiting features	Value	Paths and Trails: Rating class and limiting features	Value
CkE:				
Cataska-------------	Very limited		Somewhat limited	
	Depth to bedrock	1.00	Large stones content	0.19
	Slope	1.00		
	Gravel content	1.00		
	Large stones content	0.19		
CkF:				
Cataska-------------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Depth to bedrock	1.00	Large stones content	0.19
	Gravel content	1.00		
	Large stones content	0.19		
CkG:				
Cataska-------------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Depth to bedrock	1.00	Large stones content	0.19
	Gravel content	1.00		
	Large stones content	0.19		
CnA:				
Chenneby------------	Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.88	Depth to saturated zone	0.18
	Flooding	0.60		
Ketona--------------	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00
	Slow water movement	0.96		
	Flooding	0.60		
CoA:				
Chenneby------------	Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.88	Depth to saturated zone	0.18
	Flooding	0.60		
Urban land----------	Not Rated		Not Rated	
Ketona--------------	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00
	Slow water movement	0.96		
	Flooding	0.60		
CrE:				
Cheoah--------------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Gravel content	0.14		
Edneytown-----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00

Playgrounds and Paths and Trails—Continued

Map symbol and soil name	Playgrounds: Rating class and limiting features	Playgrounds: Value	Paths and Trails: Rating class and limiting features	Paths and Trails: Value
CsC:				
Conasauga-----------	Very limited		Not limited	
	Slope	1.00		
	Slow water movement	0.96		
	Depth to saturated zone	0.03		
	Depth to bedrock	0.01		
CuC:				
Conasauga-----------	Very limited		Not limited	
	Slope	1.00		
	Slow water movement	0.96		
	Depth to saturated zone	0.03		
	Depth to bedrock	0.01		
Urban land----------	Not Rated		Not Rated	
CvB:				
Craigsville---------	Very limited		Not limited	
	Gravel content	1.00		
	Flooding	0.60		
	Slope	0.12		
CxB:				
Cunningham----------	Somewhat limited		Not limited	
	Slow water movement	0.96		
	Slope	0.50		
CxD:				
Cunningham----------	Very limited		Not limited	
	Slope	1.00		
	Slow water movement	0.96		
CxE:				
Cunningham----------	Very limited		Somewhat limited	
	Slope	1.00	Slope	0.92
	Slow water movement	0.96		
CxF:				
Cunningham----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Slow water movement	0.96		
DeB:				
Dewey---------------	Somewhat limited		Not limited	
	Slope	0.50		
	Gravel content	0.22		
DeD:				
Dewey---------------	Very limited		Not limited	
	Slope	1.00		
	Gravel content	0.22		
DoA:				
Docena--------------	Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.88	Depth to saturated zone	0.18
	Flooding	0.60		

Playgrounds and Paths and Trails—Continued

Map symbol and soil name	Playgrounds		Paths and Trails	
	Rating class and limiting features	Value	Rating class and limiting features	Value
Ketona	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00
	Slow water movement	0.96		
	Flooding	0.60		
DsB:				
Docena	Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.88	Depth to saturated zone	0.18
	Slope	0.50		
Conasauga	Somewhat limited		Not limited	
	Slow water movement	0.96		
	Slope	0.50		
	Depth to saturated zone	0.03		
	Depth to bedrock	0.01		
Ketona	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00
	Slow water movement	0.96		
Du:				
Dumps	Not Rated		Not Rated	
EdF:				
Edneytown	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Large stones content	1.00	Large stones content	1.00
EdG:				
Edneytown	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Large stones content	1.00	Large stones content	1.00
EnB:				
Enders	Very limited		Not limited	
	Slow water movement	1.00		
	Slope	0.50		
EnD:				
Enders	Very limited		Not limited	
	Slope	1.00		
	Slow water movement	1.00		
EuC:				
Enders	Very limited		Not limited	
	Slow water movement	1.00		
	Slope	1.00		
Urban land	Not Rated		Not Rated	
FtB:				
Fullerton	Very limited		Not limited	
	Gravel content	1.00		
	Slope	0.50		

Playgrounds and Paths and Trails—Continued

Map symbol and soil name	Playgrounds		Paths and Trails	
	Rating class and limiting features	Value	Rating class and limiting features	Value
FtD:				
Fullerton	Very limited		Not limited	
	Slope	1.00		
	Gravel content	1.00		
FtE:				
Fullerton	Very limited		Somewhat limited	
	Slope	1.00	Slope	0.92
	Gravel content	1.00		
FtF:				
Fullerton	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Gravel content	1.00		
FuE:				
Fullerton	Very limited		Somewhat limited	
	Slope	1.00	Slope	0.92
	Gravel content	1.00		
Urban land	Not Rated		Not Rated	
GrA:				
Guthrie	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00
	Flooding	0.60		
	Gravel content	0.22		
	Slow water movement	0.21		
HcB:				
Hanceville	Somewhat limited		Not limited	
	Slope	0.50		
HcD:				
Hanceville	Very limited		Not limited	
	Slope	1.00		
HcE:				
Hanceville	Very limited		Somewhat limited	
	Slope	1.00	Slope	0.92
HnC:				
Hanceville	Very limited		Not limited	
	Slope	1.00		
Urban land	Not Rated		Not Rated	
HrF:				
Hector	Very limited		Somewhat limited	
	Depth to bedrock	1.00	Slope	0.50
	Slope	1.00		
	Gravel content	1.00		
Townley	Very limited		Very limited	
	Slope	1.00	Water erosion	1.00
	Slow water movement	0.96	Slope	0.50
	Gravel content	0.78		
	Depth to bedrock	0.71		

Playgrounds and Paths and Trails—Continued

Map symbol and soil name	Playgrounds		Paths and Trails	
	Rating class and limiting features	Value	Rating class and limiting features	Value
Rock outcrop	Not Rated		Not Rated	
HsB:				
Holston	Somewhat limited		Not limited	
	Slope	0.50		
	Gravel content	0.20		
HsD:				
Holston	Very limited		Not limited	
	Slope	1.00		
	Gravel content	0.20		
JfF:				
Jefferson	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Gravel content	1.00		
JfG:				
Jefferson	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Large stones content	1.00	Large stones content	1.00
	Gravel content	1.00		
JsE:				
Junaluska	Very limited		Not limited	
	Slope	1.00		
	Depth to bedrock	0.54		
	Gravel content	0.14		
JsF:				
Junaluska	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Depth to bedrock	0.54		
	Gravel content	0.14		
JsG:				
Junaluska	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Depth to bedrock	0.54		
	Gravel content	0.14		
JtE:				
Junaluska	Very limited		Not limited	
	Slope	1.00		
	Depth to bedrock	0.54		
	Gravel content	0.14		
Tsali	Very limited		Not limited	
	Depth to bedrock	1.00		
	Slope	1.00		
	Gravel content	1.00		
JtF:				
Junaluska	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Depth to bedrock	0.54		
	Gravel content	0.14		

Playgrounds and Paths and Trails—Continued

Map symbol and soil name	Playgrounds: Rating class and limiting features	Playgrounds: Value	Paths and Trails: Rating class and limiting features	Paths and Trails: Value
Tsali	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Depth to bedrock	1.00		
	Gravel content	1.00		
KtA:				
Ketona	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00
	Slow water movement	0.96		
	Flooding	0.60		
LyE:				
Lily	Very limited		Very limited	
	Slope	1.00	Large stones content	1.00
	Large stones content	1.00		
	Gravel content	0.17		
	Depth to bedrock	0.01		
MnC:				
Minvale	Very limited		Not limited	
	Gravel content	1.00		
	Slope	1.00		
Urban land	Not Rated		Not Rated	
MoF:				
Montevallo	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Depth to bedrock	1.00		
	Gravel content	1.00		
MtD:				
Montevallo	Very limited		Not limited	
	Slope	1.00		
	Depth to bedrock	1.00		
	Gravel content	1.00		
Townley	Very limited		Very limited	
	Slope	1.00	Water erosion	1.00
	Slow water movement	0.96		
	Gravel content	0.78		
	Depth to bedrock	0.71		
MtE:				
Montevallo	Very limited		Somewhat limited	
	Slope	1.00	Slope	0.92
	Depth to bedrock	1.00		
	Gravel content	1.00		
Townley	Very limited		Very limited	
	Slope	1.00	Water erosion	1.00
	Slow water movement	0.96	Slope	0.92
	Gravel content	0.78		
	Depth to bedrock	0.71		

Playgrounds and Paths and Trails—Continued

Map symbol and soil name	Playgrounds: Rating class and limiting features	Value	Paths and Trails: Rating class and limiting features	Value
MuE:				
Montevallo----------	Very limited		Somewhat limited	
	Slope	1.00	Slope	0.18
	Depth to bedrock	1.00		
	Gravel content	1.00		
Urban land----------	Not Rated		Not Rated	
NaD:				
Nauvoo--------------	Very limited		Not limited	
	Slope	1.00		
NaE:				
Nauvoo--------------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
NeB:				
Nella---------------	Somewhat limited		Not limited	
	Gravel content	0.99		
	Slope	0.50		
NeD:				
Nella---------------	Very limited		Not limited	
	Slope	1.00		
	Gravel content	0.99		
NeE:				
Nella---------------	Very limited		Somewhat limited	
	Slope	1.00	Slope	0.92
	Gravel content	0.99		
NeF:				
Nella---------------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Gravel content	0.99		
NtF:				
Nella---------------	Very limited		Very limited	
	Large stones content	1.00	Slope	1.00
	Slope	1.00	Large stones content	1.00
	Gravel content	0.99		
Hector--------------	Very limited		Very limited	
	Large stones content	1.00	Slope	1.00
	Slope	1.00	Large stones content	1.00
	Depth to bedrock	1.00		
	Gravel content	1.00		
Townley-------------	Very limited		Very limited	
	Large stones content	1.00	Slope	1.00
	Slope	1.00	Water erosion	1.00
	Slow water movement	0.96	Large stones content	1.00
	Gravel content	0.78		
	Depth to bedrock	0.71		

Playgrounds and Paths and Trails—Continued

Map symbol and soil name	Playgrounds: Rating class and limiting features	Playgrounds: Value	Paths and Trails: Rating class and limiting features	Paths and Trails: Value
PaE:				
Panama	Very limited		Somewhat limited	
	Slope	1.00	Slope	0.92
	Gravel content	1.00		
PaF:				
Panama	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Gravel content	1.00		
PcD:				
Pigeonroost	Very limited		Not limited	
	Slope	1.00		
	Depth to bedrock	0.16		
Cheoah	Very limited		Not limited	
	Slope	1.00		
	Gravel content	0.14		
Qu:				
Pits, quarries	Not Rated		Not Rated	
Rk:				
Rock outcrop	Not Rated		Not Rated	
SaA:				
Sequatchie	Somewhat limited		Not limited	
	Flooding	0.60		
SaB:				
Sequatchie	Somewhat limited		Not limited	
	Slope	0.50		
ScB:				
Shack	Very limited		Somewhat limited	
	Gravel content	1.00	Depth to saturated zone	0.04
	Depth to saturated zone	0.67		
	Slope	0.50		
	Depth to cemented pan	0.46		
	Slow water movement	0.21		
Guthrie	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00
	Gravel content	0.22		
	Slow water movement	0.21		
SdD:				
Shack	Very limited		Somewhat limited	
	Gravel content	1.00	Depth to saturated zone	0.04
	Slope	1.00		
	Depth to saturated zone	0.67		
	Depth to cemented pan	0.46		
	Slow water movement	0.21		

Playgrounds and Paths and Trails—Continued

Map symbol and soil name	Playgrounds: Rating class and limiting features	Value	Paths and Trails: Rating class and limiting features	Value
Bodine	Very limited		Very limited	
	Gravel content	1.00	Large stones content	1.00
	Slope	1.00		
	Large stones content	1.00		
Minvale	Very limited		Not limited	
	Gravel content	1.00		
	Slope	1.00		
SdE:				
Shack	Very limited		Somewhat limited	
	Gravel content	1.00	Slope	0.92
	Slope	1.00	Depth to saturated zone	0.04
	Depth to saturated zone	0.67		
	Depth to cemented pan	0.46		
	Slow water movement	0.21		
Bodine	Very limited		Very limited	
	Gravel content	1.00	Large stones content	1.00
	Slope	1.00	Slope	0.92
	Large stones content	1.00		
Minvale	Very limited		Somewhat limited	
	Gravel content	1.00	Slope	0.92
	Slope	1.00		
SeA:				
Shellbluff	Somewhat limited		Not limited	
	Flooding	0.60		
Ketona	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00
	Slow water movement	0.96		
	Flooding	0.60		
ShC:				
Shelocta	Very limited		Not limited	
	Gravel content	1.00		
	Slope	1.00		
SpD:				
Sipsey	Very limited		Not limited	
	Slope	1.00		
	Depth to bedrock	0.16		
SpE:				
Sipsey	Very limited		Somewhat limited	
	Slope	1.00	Slope	0.92
	Depth to bedrock	0.16		
SuB:				
Subligna	Very limited		Very limited	
	Gravel content	1.00	Gravel content	1.00
	Flooding	0.60		
	Slope	0.12		

Playgrounds and Paths and Trails—Continued

Map symbol and soil name	Playgrounds: Rating class and limiting features	Playgrounds: Value	Paths and Trails: Rating class and limiting features	Paths and Trails: Value
SxA:				
Suches	Somewhat limited		Not limited	
	Flooding	0.60		
TnB:				
Townley	Somewhat limited		Not limited	
	Slow water movement	0.96		
	Gravel content	0.78		
	Depth to bedrock	0.71		
	Slope	0.50		
TnD:				
Townley	Very limited		Very limited	
	Slope	1.00	Water erosion	1.00
	Slow water movement	0.96		
	Gravel content	0.78		
	Depth to bedrock	0.71		
TnE:				
Townley	Very limited		Very limited	
	Slope	1.00	Water erosion	1.00
	Slow water movement	0.96	Slope	0.92
	Gravel content	0.78		
	Depth to bedrock	0.71		
TnF:				
Townley	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Slow water movement	0.96	Water erosion	1.00
	Gravel content	0.78		
	Depth to bedrock	0.71		
TrC:				
Townley	Very limited		Very limited	
	Slope	1.00	Water erosion	1.00
	Slow water movement	0.96		
	Gravel content	0.78		
	Depth to bedrock	0.71		
Urban land	Not Rated		Not Rated	
TsE:				
Tsali	Very limited		Not limited	
	Depth to bedrock	1.00		
	Slope	1.00		
	Gravel content	1.00		
TsF:				
Tsali	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Depth to bedrock	1.00		
	Gravel content	1.00		
TsG:				
Tsali	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Depth to bedrock	1.00		
	Gravel content	1.00		

Playgrounds and Paths and Trails—Continued

Map symbol and soil name	Playgrounds: Rating class and limiting features	Playgrounds: Value	Paths and Trails: Rating class and limiting features	Paths and Trails: Value
Uc:				
Ultic Udarents, channery	Not Rated		Not Rated	
Ug:				
Ultic Udarents, gravelly	Not Rated		Not Rated	
UrC:				
Urban land	Not Rated		Not Rated	
WaA:				
Wax	Somewhat limited		Not limited	
	Flooding	0.60		
	Depth to saturated zone	0.01		
Guthrie	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00
	Flooding	0.60		
	Gravel content	0.22		
	Slow water movement	0.21		
WaB:				
Wax	Somewhat limited		Not limited	
	Depth to cemented pan	0.54		
	Slope	0.50		
	Depth to saturated zone	0.01		
WnB:				
Waynesboro	Somewhat limited		Not limited	
	Slope	0.50		
WnD:				
Waynesboro	Very limited		Not limited	
	Slope	1.00		
WsC:				
Waynesboro	Very limited		Not limited	
	Slope	1.00		
Urban land	Not Rated		Not Rated	
WtA:				
Whitwell	Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.95	Depth to saturated zone	0.32
	Flooding	0.60		
Guthrie	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00
	Flooding	0.60		
	Gravel content	0.22		
	Slow water movement	0.21		

Playgrounds and Paths and Trails—Continued

Map symbol and soil name	Playgrounds: Rating class and limiting features	Playgrounds: Value	Paths and Trails: Rating class and limiting features	Paths and Trails: Value
Ketona--------------	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00
	Slow water movement	0.96		
	Flooding	0.60		
WtB:				
Whitwell------------	Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.95	Depth to saturated zone	0.32
	Slope	0.50		
WuA:				
Whitwell------------	Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.95	Depth to saturated zone	0.32
	Flooding	0.60		
Urban land----------	Not Rated		Not Rated	
Ketona--------------	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Ponding	1.00	Ponding	1.00
	Slow water movement	0.96		
	Flooding	0.60		

Dwellings

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Dwellings without basements		Dwellings with basements	
	Rating class and limiting features	Value	Rating class and limiting features	Value
AbB:				
Albertville	Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Depth to saturated zone	0.97
			Shrink-swell	0.50
AbD:				
Albertville	Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Depth to saturated zone	0.97
	Slope	0.37	Shrink-swell	0.50
			Slope	0.37
AnB:				
Allen	Not limited		Not limited	
AnD:				
Allen	Somewhat limited		Somewhat limited	
	Slope	0.37	Slope	0.37
AnE:				
Allen	Very limited		Very limited	
	Slope	1.00	Slope	1.00
ArC:				
Allen	Somewhat limited		Somewhat limited	
	Slope	0.04	Slope	0.04
Urban land	Not rated		Not rated	
ArE:				
Allen	Very limited		Very limited	
	Slope	1.00	Slope	1.00
Urban land	Not rated		Not rated	
AuA:				
Arkabutla	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Ketona	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Shrink-swell	1.00	Shrink-swell	1.00
BoD:				
Bodine	Somewhat limited		Somewhat limited	
	Slope	0.37	Slope	0.37

Dwellings—Continued

Map symbol and soil name	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value
BoE:				
Bodine	Very limited		Very limited	
	Slope	1.00	Slope	1.00
BoF:				
Bodine	Very limited		Very limited	
	Slope	1.00	Slope	1.00
CaA:				
Capshaw	Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Depth to saturated	0.97
			zone	
			Shrink-swell	0.50
			Depth to hard	0.08
			bedrock	
Ketona	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Depth to saturated	1.00	Depth to saturated	1.00
	zone		zone	
	Shrink-swell	1.00	Shrink-swell	1.00
Guthrie	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Depth to saturated	1.00	Depth to saturated	1.00
	zone		zone	
CaB:				
Capshaw	Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Depth to saturated	0.97
			zone	
			Shrink-swell	0.50
			Depth to hard	0.08
			bedrock	
Ketona	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Depth to saturated	1.00	Depth to saturated	1.00
	zone		zone	
	Shrink-swell	1.00	Shrink-swell	1.00
Guthrie	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Depth to saturated	1.00	Depth to saturated	1.00
	zone		zone	
CkE:				
Cataska	Very limited		Very limited	
	Slope	1.00	Depth to hard	1.00
	Depth to hard	0.71	bedrock	
	bedrock		Depth to soft	1.00
	Depth to soft	0.50	bedrock	
	bedrock		Slope	1.00
CkF:				
Cataska	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Depth to hard	0.71	Depth to hard	1.00
	bedrock		bedrock	
	Depth to soft	0.50	Depth to soft	1.00
	bedrock		bedrock	

Dwellings—Continued

Map symbol and soil name	Dwellings without basements		Dwellings with basements	
	Rating class and limiting features	Value	Rating class and limiting features	Value
CkG:				
Cataska	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Depth to hard bedrock	0.71	Depth to hard bedrock	1.00
	Depth to soft bedrock	0.50	Depth to soft bedrock	1.00
CnA:				
Chenneby	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	0.88	Depth to saturated zone	1.00
Ketona	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Shrink-swell	1.00	Shrink-swell	1.00
CoA:				
Chenneby	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	0.88	Depth to saturated zone	1.00
Urban land	Not rated		Not rated	
Ketona	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Shrink-swell	1.00	Shrink-swell	1.00
CrE:				
Cheoah	Very limited		Very limited	
	Slope	1.00	Slope	1.00
Edneytown	Very limited		Very limited	
	Slope	1.00	Slope	1.00
CsC:				
Conasauga	Somewhat limited		Very limited	
	Shrink-swell	0.50	Depth to saturated zone	1.00
	Depth to saturated zone	0.03	Shrink-swell	0.50
	Slope	0.01	Depth to soft bedrock	0.01
			Slope	0.01
CuC:				
Conasauga	Somewhat limited		Very limited	
	Shrink-swell	0.50	Depth to saturated zone	1.00
	Depth to saturated zone	0.03	Shrink-swell	0.50
			Depth to soft bedrock	0.01
Urban land	Not rated		Not rated	

Dwellings—Continued

Map symbol and soil name	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value
CvB:				
Craigsville	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Large stones content	0.02	Large stones content	0.02
CxB:				
Cunningham	Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Shrink-swell	0.50
CxD:				
Cunningham	Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Shrink-swell	0.50
	Slope	0.37	Slope	0.37
CxE:				
Cunningham	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Shrink-swell	0.50	Shrink-swell	0.50
CxF:				
Cunningham	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Shrink-swell	0.50	Shrink-swell	0.50
DeB:				
Dewey	Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Shrink-swell	0.50
DeD:				
Dewey	Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Shrink-swell	0.50
	Slope	0.37	Slope	0.37
DoA:				
Docena	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	0.88	Depth to saturated zone	1.00
	Shrink-swell	0.50	Shrink-swell	0.50
Ketona	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Shrink-swell	1.00	Shrink-swell	1.00
DsB:				
Docena	Somewhat limited		Very limited	
	Depth to saturated zone	0.88	Depth to saturated zone	1.00
	Shrink-swell	0.50	Shrink-swell	0.50
Conasauga	Somewhat limited		Very limited	
	Shrink-swell	0.50	Depth to saturated zone	1.00
	Depth to saturated zone	0.03	Shrink-swell	0.50
			Depth to soft bedrock	0.01

Dwellings—Continued

Map symbol and soil name	Dwellings without basements		Dwellings with basements	
	Rating class and limiting features	Value	Rating class and limiting features	Value
Ketona--------------	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Shrink-swell	1.00	Shrink-swell	1.00
Du:				
Dumps---------------	Not rated		Not rated	
EdF:				
Edneytown-----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
EdG:				
Edneytown-----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
EnB:				
Enders--------------	Very limited		Very limited	
	Shrink-swell	1.00	Shrink-swell	1.00
EnD:				
Enders--------------	Very limited		Very limited	
	Shrink-swell	1.00	Shrink-swell	1.00
	Slope	0.37	Slope	0.37
EuC:				
Enders--------------	Very limited		Very limited	
	Shrink-swell	1.00	Shrink-swell	1.00
	Slope	0.04	Slope	0.04
Urban land----------	Not rated		Not rated	
FtB:				
Fullerton-----------	Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Shrink-swell	0.50
FtD:				
Fullerton-----------	Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Shrink-swell	0.50
	Slope	0.37	Slope	0.37
FtE:				
Fullerton-----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Shrink-swell	0.50	Shrink-swell	0.50
FtF:				
Fullerton-----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Shrink-swell	0.50	Shrink-swell	0.50
FuE:				
Fullerton-----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Shrink-swell	0.50	Shrink-swell	0.50
Urban land----------	Not rated		Not rated	

Dwellings—Continued

Map symbol and soil name	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value
GrA:				
Guthrie-------------	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
HcB:				
Hanceville----------	Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Shrink-swell	0.50
HcD:				
Hanceville----------	Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Shrink-swell	0.50
	Slope	0.37	Slope	0.37
HcE:				
Hanceville----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Shrink-swell	0.50	Shrink-swell	0.50
HnC:				
Hanceville----------	Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Shrink-swell	0.50
	Slope	0.04	Slope	0.04
Urban land----------	Not rated		Not rated	
HrF:				
Hector--------------	Very limited		Very limited	
	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
	Slope	1.00	Slope	1.00
Townley-------------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Shrink-swell	0.50	Depth to soft bedrock	0.71
			Shrink-swell	0.50
Rock outcrop--------	Not rated		Not rated	
HsB:				
Holston-------------	Not limited		Not limited	
HsD:				
Holston-------------	Somewhat limited		Somewhat limited	
	Slope	0.37	Slope	0.37
JfF:				
Jefferson-----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
JfG:				
Jefferson-----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00

Dwellings—Continued

Map symbol and soil name	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value
JsE:				
Junaluska-----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
			Depth to soft bedrock	0.54
JsF:				
Junaluska-----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
			Depth to soft bedrock	0.54
JsG:				
Junaluska-----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
			Depth to soft bedrock	0.54
JtE:				
Junaluska-----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
			Depth to soft bedrock	0.54
Tsali---------------	Very limited		Very limited	
	Slope	1.00	Depth to soft bedrock	1.00
	Depth to soft bedrock	0.50	Slope	1.00
JtF:				
Junaluska-----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
			Depth to soft bedrock	0.54
Tsali---------------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Depth to soft bedrock	0.50	Depth to soft bedrock	1.00
KtA:				
Ketona--------------	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Shrink-swell	1.00	Shrink-swell	1.00
LyE:				
Lily----------------	Very limited		Very limited	
	Slope	1.00	Depth to hard bedrock	1.00
	Depth to hard bedrock	0.01	Slope	1.00
MnC:				
Minvale-------------	Somewhat limited		Somewhat limited	
	Slope	0.04	Slope	0.04
Urban land----------	Not rated		Not rated	

Dwellings—Continued

Map symbol and soil name	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value
MoF:				
Montevallo----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Depth to soft bedrock	0.50	Depth to soft bedrock	1.00
MtD:				
Montevallo----------	Somewhat limited		Very limited	
	Depth to soft bedrock	0.50	Depth to soft bedrock	1.00
	Slope	0.37	Slope	0.37
Townley-------------	Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Depth to soft bedrock	0.71
	Slope	0.37	Shrink-swell	0.50
			Slope	0.37
MtE:				
Montevallo----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Depth to soft bedrock	0.50	Depth to soft bedrock	1.00
Townley-------------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Shrink-swell	0.50	Depth to soft bedrock	0.71
			Shrink-swell	0.50
MuE:				
Montevallo----------	Very limited		Very limited	
	Slope	1.00	Depth to soft bedrock	1.00
	Depth to soft bedrock	0.50	Slope	1.00
Urban land----------	Not rated		Not rated	
NaD:				
Nauvoo--------------	Somewhat limited		Somewhat limited	
	Slope	0.37	Slope	0.37
NaE:				
Nauvoo--------------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
NeB:				
Nella---------------	Not limited		Not limited	
NeD:				
Nella---------------	Somewhat limited		Somewhat limited	
	Slope	0.37	Slope	0.37
NeE:				
Nella---------------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
NeF:				
Nella---------------	Very limited		Very limited	
	Slope	1.00	Slope	1.00

Dwellings—Continued

Map symbol and soil name	Dwellings without basements		Dwellings with basements	
	Rating class and limiting features	Value	Rating class and limiting features	Value
NtF:				
Nella	Very limited		Very limited	
	Slope	1.00	Slope	1.00
Hector	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
Townley	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Shrink-swell	0.50	Depth to soft bedrock	0.71
			Shrink-swell	0.50
PaE:				
Panama	Very limited		Very limited	
	Slope	1.00	Slope	1.00
PaF:				
Panama	Very limited		Very limited	
	Slope	1.00	Slope	1.00
PcD:				
Pigeonroost	Somewhat limited		Somewhat limited	
	Slope	0.16	Slope	0.16
			Depth to soft bedrock	0.15
Cheoah	Somewhat limited		Somewhat limited	
	Slope	0.16	Slope	0.16
Qu:				
Pits, quarries	Not rated		Not rated	
Rk:				
Rock outcrop	Not rated		Not rated	
SaA:				
Sequatchie	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
SaB:				
Sequatchie	Not limited		Not limited	
ScB:				
Shack	Somewhat limited		Very limited	
	Depth to saturated zone	0.67	Depth to saturated zone	1.00
Guthrie	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
SdD:				
Shack	Somewhat limited		Very limited	
	Depth to saturated zone	0.67	Depth to saturated zone	1.00
	Slope	0.37	Slope	0.37

Dwellings—Continued

Map symbol and soil name	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value
Bodine	Somewhat limited		Somewhat limited	
	Slope	0.37	Slope	0.37
Minvale	Somewhat limited		Somewhat limited	
	Slope	0.37	Slope	0.37
SdE:				
Shack	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Depth to saturated zone	0.67	Depth to saturated zone	1.00
Bodine	Very limited		Very limited	
	Slope	1.00	Slope	1.00
Minvale	Very limited		Very limited	
	Slope	1.00	Slope	1.00
SeA:				
Shellbluff	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
			Depth to saturated zone	0.06
Ketona	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Shrink-swell	1.00	Shrink-swell	1.00
ShC:				
Shelocta	Somewhat limited		Somewhat limited	
	Slope	0.04	Slope	0.04
SpD:				
Sipsey	Somewhat limited		Somewhat limited	
	Slope	0.16	Slope	0.16
			Depth to soft bedrock	0.15
SpE:				
Sipsey	Very limited		Very limited	
	Slope	1.00	Slope	1.00
			Depth to soft bedrock	0.15
SuB:				
Subligna	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
SxA:				
Suches	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
TnB:				
Townley	Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Depth to soft bedrock	0.71
			Shrink-swell	0.50

Dwellings—Continued

Map symbol and soil name	Dwellings without basements		Dwellings with basements	
	Rating class and limiting features	Value	Rating class and limiting features	Value
TnD:				
Townley-------------	Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Depth to soft bedrock	0.71
	Slope	0.37	Shrink-swell	0.50
			Slope	0.37
TnE:				
Townley-------------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Shrink-swell	0.50	Depth to soft bedrock	0.71
			Shrink-swell	0.50
TnF:				
Townley-------------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Shrink-swell	0.50	Depth to soft bedrock	0.71
			Shrink-swell	0.50
TrC:				
Townley-------------	Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Depth to soft bedrock	0.71
	Slope	0.04	Shrink-swell	0.50
			Slope	0.04
Urban land----------	Not rated		Not rated	
TsE:				
Tsali---------------	Very limited		Very limited	
	Slope	1.00	Depth to soft bedrock	1.00
	Depth to soft bedrock	0.50	Slope	1.00
TsF:				
Tsali---------------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Depth to soft bedrock	0.50	Depth to soft bedrock	1.00
TsG:				
Tsali---------------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Depth to soft bedrock	0.50	Depth to soft bedrock	1.00
Uc:				
Ultic Udarents, channery-----------	Not rated		Not rated	
Ug:				
Ultic Udarents, gravelly-----------	Not rated		Not rated	
UrC:				
Urban land----------	Not rated		Not rated	

Dwellings—Continued

Map symbol and soil name	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value
WaA:				
Wax	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	0.01	Depth to saturated zone	1.00
Guthrie	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
WaB:				
Wax	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	0.01	Depth to saturated zone	1.00
WnB:				
Waynesboro	Not limited		Not limited	
WnD:				
Waynesboro	Somewhat limited		Somewhat limited	
	Slope	0.37	Slope	0.37
WsC:				
Waynesboro	Somewhat limited		Somewhat limited	
	Slope	0.04	Slope	0.04
Urban land	Not rated		Not rated	
WtA:				
Whitwell	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	0.95	Depth to saturated zone	1.00
Guthrie	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Ketona	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Shrink-swell	1.00	Shrink-swell	1.00
WtB:				
Whitwell	Somewhat limited		Very limited	
	Depth to saturated zone	0.95	Depth to saturated zone	1.00

Dwellings—Continued

Map symbol and soil name	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value
WuA:				
Whitwell------------	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	0.95	Depth to saturated zone	1.00
Urban land----------	Not rated		Not rated	
Ketona--------------	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Shrink-swell	1.00	Shrink-swell	1.00

Roads and Streets and Shallow Excavations

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value
AbB:				
Albertville	Very limited		Somewhat limited	
	Low strength	1.00	Depth to saturated zone	0.97
	Shrink-swell	0.50	Cutbanks cave	0.10
			Too clayey	0.08
AbD:				
Albertville	Very limited		Somewhat limited	
	Low strength	1.00	Depth to saturated zone	0.97
	Shrink-swell	0.50	Slope	0.37
	Slope	0.37	Cutbanks cave	0.10
			Too clayey	0.08
AnB:				
Allen	Somewhat limited		Somewhat limited	
	Low strength	0.24	Cutbanks cave	0.10
AnD:				
Allen	Somewhat limited		Somewhat limited	
	Slope	0.37	Slope	0.37
	Low strength	0.24	Cutbanks cave	0.10
AnE:				
Allen	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Low strength	0.24	Cutbanks cave	0.10
ArC:				
Allen	Somewhat limited		Somewhat limited	
	Low strength	0.24	Cutbanks cave	0.10
	Slope	0.04	Slope	0.04
Urban land	Not Rated		Not rated	
ArE:				
Allen	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Low strength	0.24	Cutbanks cave	0.10
Urban land	Not Rated		Not rated	
AuA:				
Arkabutla	Very limited		Very limited	
	Flooding	1.00	Depth to saturated zone	1.00
	Low strength	1.00	Flooding	0.60
	Depth to saturated zone	0.99	Cutbanks cave	0.10

Roads and Streets and Shallow Excavations—Continued

Map symbol and soil name	Local roads and streets		Shallow excavations	
	Rating class and limiting features	Value	Rating class and limiting features	Value
Ketona	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Flooding	0.60
	Low strength	1.00	Too clayey	0.12
	Shrink-swell	1.00	Cutbanks cave	0.10
BoD:				
Bodine	Somewhat limited		Very limited	
	Slope	0.37	Cutbanks cave	1.00
			Slope	0.37
BoE:				
Bodine	Very limited		Very limited	
	Slope	1.00	Slope	1.00
			Cutbanks cave	1.00
BoF:				
Bodine	Very limited		Very limited	
	Slope	1.00	Slope	1.00
			Cutbanks cave	1.00
CaA:				
Capshaw	Very limited		Somewhat limited	
	Low strength	1.00	Depth to saturated zone	0.97
	Shrink-swell	0.50	Too clayey	0.12
			Cutbanks cave	0.10
			Depth to hard bedrock	0.08
Ketona	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Low strength	1.00	Too clayey	0.12
	Shrink-swell	1.00	Cutbanks cave	0.10
Guthrie	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Low strength	1.00	Cutbanks cave	1.00
CaB:				
Capshaw	Very limited		Somewhat limited	
	Low strength	1.00	Depth to saturated zone	0.97
	Shrink-swell	0.50	Too clayey	0.12
			Cutbanks cave	0.10
			Depth to hard bedrock	0.08
Ketona	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Low strength	1.00	Too clayey	0.12
	Shrink-swell	1.00	Cutbanks cave	0.10

Roads and Streets and Shallow Excavations—Continued

Map symbol and soil name	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value
Guthrie	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Low strength	1.00	Cutbanks cave	1.00
CkE:				
Cataska	Very limited		Very limited	
	Depth to soft bedrock	1.00	Depth to hard bedrock	1.00
	Slope	1.00	Depth to soft bedrock	
	Depth to hard bedrock	0.71	Slope	1.00
	Frost action	0.50		
CkF:				
Cataska	Very limited		Very limited	
	Slope	1.00	Depth to hard bedrock	1.00
	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
	Depth to hard bedrock	0.71	Slope	1.00
	Frost action	0.50		
CkG:				
Cataska	Very limited		Very limited	
	Slope	1.00	Depth to hard bedrock	1.00
	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
	Depth to hard bedrock	0.71	Slope	1.00
	Frost action	0.50		
CnA:				
Chenneby	Very limited		Very limited	
	Flooding	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	0.56	Flooding	0.60
	Low strength	0.24	Cutbanks cave	0.10
Ketona	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Flooding	0.60
	Low strength	1.00	Too clayey	0.12
	Shrink-swell	1.00	Cutbanks cave	0.10
CoA:				
Chenneby	Very limited		Very limited	
	Flooding	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	0.56	Flooding	0.60
	Low strength	0.24	Cutbanks cave	0.10
Urban land	Not Rated		Not rated	

Roads and Streets and Shallow Excavations—Continued

Map symbol and soil name	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value
Ketona	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Flooding	0.60
	Low strength	1.00	Too clayey	0.12
	Shrink-swell	1.00	Cutbanks cave	0.10
CrE:				
Cheoah	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Frost action	0.50	Cutbanks cave	0.10
Edneytown	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Frost action	0.50	Cutbanks cave	1.00
CsC:				
Conasauga	Very limited		Very limited	
	Low strength	1.00	Depth to saturated zone	1.00
	Shrink-swell	0.50	Too clayey	0.12
	Depth to saturated zone	0.02	Cutbanks cave	0.10
	Slope	0.01	Depth to soft bedrock	0.01
			Slope	0.01
CuC:				
Conasauga	Very limited		Very limited	
	Low strength	1.00	Depth to saturated zone	1.00
	Shrink-swell	0.50	Too clayey	0.12
	Depth to saturated zone	0.02	Cutbanks cave	0.10
			Depth to soft bedrock	0.01
Urban land	Not Rated		Not rated	
CvB:				
Craigsville	Very limited		Very limited	
	Flooding	1.00	Cutbanks cave	1.00
	Frost action	0.50	Flooding	0.60
	Large stones content	0.02	Large stones content	0.02
CxB:				
Cunningham	Very limited		Somewhat limited	
	Low strength	1.00	Too clayey	0.12
	Shrink-swell	0.50	Cutbanks cave	0.10
CxD:				
Cunningham	Very limited		Somewhat limited	
	Low strength	1.00	Slope	0.37
	Shrink-swell	0.50	Too clayey	0.12
	Slope	0.37	Cutbanks cave	0.10
CxE:				
Cunningham	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Low strength	1.00	Too clayey	0.12
	Shrink-swell	0.50	Cutbanks cave	0.10

Roads and Streets and Shallow Excavations—Continued

Map symbol and soil name	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value
CxF:				
Cunningham	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Low strength	1.00	Too clayey	0.12
	Shrink-swell	0.50	Cutbanks cave	0.10
DeB:				
Dewey	Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Too clayey	0.50
	Low strength	0.50	Cutbanks cave	0.10
DeD:				
Dewey	Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Too clayey	0.50
	Low strength	0.50	Slope	0.37
	Slope	0.37	Cutbanks cave	0.10
DoA:				
Docena	Very limited		Very limited	
	Flooding	1.00	Depth to saturated zone	1.00
	Low strength	1.00	Flooding	0.60
	Depth to saturated zone	0.56	Cutbanks cave	0.10
	Shrink-swell	0.50		
Ketona	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Flooding	0.60
	Low strength	1.00	Too clayey	0.12
	Shrink-swell	1.00	Cutbanks cave	0.10
DsB:				
Docena	Very limited		Very limited	
	Low strength	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	0.56	Cutbanks cave	0.10
	Shrink-swell	0.50		
Conasauga	Very limited		Very limited	
	Low strength	1.00	Depth to saturated zone	1.00
	Shrink-swell	0.50	Too clayey	0.12
	Depth to saturated zone	0.02	Cutbanks cave	0.10
			Depth to soft bedrock	0.01
Ketona	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Low strength	1.00	Too clayey	0.12
	Shrink-swell	1.00	Cutbanks cave	0.10
Du:				
Dumps	Not Rated		Not rated	

Roads and Streets and Shallow Excavations—Continued

Map symbol and soil name	Local roads and streets		Shallow excavations	
	Rating class and limiting features	Value	Rating class and limiting features	Value
EdF:				
Edneytown-----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Frost action	0.50	Cutbanks cave	1.00
EdG:				
Edneytown-----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Frost action	0.50	Cutbanks cave	1.00
EnB:				
Enders--------------	Very limited		Somewhat limited	
	Shrink-swell	1.00	Too clayey	0.50
	Low strength	1.00	Cutbanks cave	0.10
EnD:				
Enders--------------	Very limited		Somewhat limited	
	Shrink-swell	1.00	Too clayey	0.50
	Low strength	1.00	Slope	0.37
	Slope	0.37	Cutbanks cave	0.10
EuC:				
Enders--------------	Very limited		Somewhat limited	
	Shrink-swell	1.00	Too clayey	0.50
	Low strength	1.00	Cutbanks cave	0.10
	Slope	0.04	Slope	0.04
Urban land----------	Not Rated		Not rated	
FtB:				
Fullerton-----------	Somewhat limited		Very limited	
	Shrink-swell	0.50	Cutbanks cave	1.00
	Low strength	0.50	Too clayey	0.88
FtD:				
Fullerton-----------	Somewhat limited		Very limited	
	Shrink-swell	0.50	Cutbanks cave	1.00
	Low strength	0.50	Too clayey	0.88
	Slope	0.37	Slope	0.37
FtE:				
Fullerton-----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Shrink-swell	0.50	Cutbanks cave	1.00
	Low strength	0.50	Too clayey	0.88
FtF:				
Fullerton-----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Shrink-swell	0.50	Cutbanks cave	1.00
	Low strength	0.50	Too clayey	0.88
FuE:				
Fullerton-----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Shrink-swell	0.50	Cutbanks cave	1.00
	Low strength	0.50	Too clayey	0.88
Urban land----------	Not Rated		Not rated	

Roads and Streets and Shallow Excavations—Continued

Map symbol and soil name	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value
GrA:				
Guthrie-------------	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Cutbanks cave	1.00
	Low strength	1.00	Flooding	0.60
HcB:				
Hanceville----------	Very limited		Somewhat limited	
	Low strength	1.00	Cutbanks cave	0.10
	Shrink-swell	0.50		
HcD:				
Hanceville----------	Very limited		Somewhat limited	
	Low strength	1.00	Slope	0.37
	Shrink-swell	0.50	Cutbanks cave	0.10
	Slope	0.37		
HcE:				
Hanceville----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Low strength	1.00	Cutbanks cave	0.10
	Shrink-swell	0.50		
HnC:				
Hanceville----------	Very limited		Somewhat limited	
	Low strength	1.00	Cutbanks cave	0.10
	Shrink-swell	0.50	Slope	0.04
	Slope	0.04		
Urban land----------	Not Rated		Not rated	
HrF:				
Hector--------------	Very limited		Very limited	
	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
	Slope	1.00	Slope	1.00
			Cutbanks cave	0.10
Townley-------------	Very limited		Very limited	
	Low strength	1.00	Slope	1.00
	Slope	1.00	Depth to soft bedrock	0.71
	Shrink-swell	0.50		
			Cutbanks cave	0.10
Rock outcrop--------	Not Rated		Not rated	
HsB:				
Holston-------------	Somewhat limited		Somewhat limited	
	Low strength	0.24	Cutbanks cave	0.10
HsD:				
Holston-------------	Somewhat limited		Somewhat limited	
	Slope	0.37	Slope	0.37
	Low strength	0.24	Cutbanks cave	0.10
JfF:				
Jefferson-----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
			Cutbanks cave	1.00

Roads and Streets and Shallow Excavations—Continued

Map symbol and soil name	Local roads and streets		Shallow excavations	
	Rating class and limiting features	Value	Rating class and limiting features	Value
JfG:				
Jefferson-----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
			Cutbanks cave	1.00
JsE:				
Junaluska-----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Frost action	0.50	Depth to soft bedrock	0.54
	Low strength	0.24		
			Cutbanks cave	0.10
JsF:				
Junaluska-----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Frost action	0.50	Depth to soft bedrock	0.54
	Low strength	0.24		
			Cutbanks cave	0.10
JsG:				
Junaluska-----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Frost action	0.50	Depth to soft bedrock	0.54
	Low strength	0.24		
			Cutbanks cave	0.10
JtE:				
Junaluska-----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Frost action	0.50	Depth to soft bedrock	0.54
	Low strength	0.24		
			Cutbanks cave	0.10
Tsali---------------	Very limited		Very limited	
	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
	Slope	1.00	Slope	1.00
	Frost action	0.50	Cutbanks cave	0.10
	Low strength	0.24		
JtF:				
Junaluska-----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Frost action	0.50	Depth to soft bedrock	0.54
	Low strength	0.24		
			Cutbanks cave	0.10
Tsali---------------	Very limited		Very limited	
	Slope	1.00	Depth to soft bedrock	1.00
	Depth to soft bedrock	1.00		
			Slope	1.00
	Frost action	0.50	Cutbanks cave	0.10
	Low strength	0.24		

Roads and Streets and Shallow Excavations—Continued

Map symbol and soil name	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value
KtA:				
Ketona	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Flooding	0.60
	Low strength	1.00	Too clayey	0.12
	Shrink-swell	1.00	Cutbanks cave	0.10
LyE:				
Lily	Very limited		Very limited	
	Slope	1.00	Depth to hard bedrock	1.00
	Depth to hard bedrock	0.01	Cutbanks cave	1.00
			Slope	1.00
MnC:				
Minvale	Somewhat limited		Very limited	
	Slope	0.04	Cutbanks cave	1.00
			Slope	0.04
Urban land	Not Rated		Not rated	
MoF:				
Montevallo	Very limited		Very limited	
	Slope	1.00	Depth to soft bedrock	1.00
	Depth to soft bedrock	1.00	Slope	1.00
			Cutbanks cave	0.10
MtD:				
Montevallo	Somewhat limited		Very limited	
	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
	Slope	0.37	Slope	0.37
			Cutbanks cave	0.10
Townley	Very limited		Somewhat limited	
	Low strength	1.00	Depth to soft bedrock	0.71
	Shrink-swell	0.50	Slope	0.37
	Slope	0.37	Cutbanks cave	0.10
MtE:				
Montevallo	Very limited		Very limited	
	Slope	1.00	Depth to soft bedrock	1.00
	Depth to soft bedrock	1.00	Slope	1.00
			Cutbanks cave	0.10
Townley	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Low strength	1.00	Depth to soft bedrock	0.71
	Shrink-swell	0.50	Cutbanks cave	0.10

Roads and Streets and Shallow Excavations—Continued

Map symbol and soil name	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value
MuE:				
Montevallo----------	Very limited		Very limited	
	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
	Slope	1.00	Slope	1.00
			Cutbanks cave	0.10
Urban land----------	Not Rated		Not rated	
NaD:				
Nauvoo--------------	Somewhat limited		Somewhat limited	
	Slope	0.37	Slope	0.37
	Low strength	0.01	Cutbanks cave	0.10
NaE:				
Nauvoo--------------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Low strength	0.01	Cutbanks cave	0.10
NeB:				
Nella---------------	Not limited		Very limited	
			Cutbanks cave	1.00
NeD:				
Nella---------------	Somewhat limited		Very limited	
	Slope	0.37	Cutbanks cave	1.00
			Slope	0.37
NeE:				
Nella---------------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
			Cutbanks cave	1.00
NeF:				
Nella---------------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
			Cutbanks cave	1.00
NtF:				
Nella---------------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
			Cutbanks cave	1.00
Hector--------------	Very limited		Very limited	
	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
	Slope	1.00	Slope	1.00
			Cutbanks cave	0.10
Townley-------------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Low strength	1.00	Depth to soft bedrock	0.71
	Shrink-swell	0.50	Cutbanks cave	0.10
PaE:				
Panama--------------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
			Cutbanks cave	1.00

Roads and Streets and Shallow Excavations—Continued

Map symbol and soil name	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value
PaF:				
Panama	Very limited		Very limited	
	Slope	1.00	Slope	1.00
			Cutbanks cave	1.00
PcD:				
Pigeonroost	Somewhat limited		Very limited	
	Frost action	0.50	Cutbanks cave	1.00
	Slope	0.16	Slope	0.16
			Depth to soft bedrock	0.15
Cheoah	Somewhat limited		Somewhat limited	
	Frost action	0.50	Slope	0.16
	Slope	0.16	Cutbanks cave	0.10
Qu:				
Pits, quarries	Not Rated		Not rated	
Rk:				
Rock outcrop	Not Rated		Not rated	
SaA:				
Sequatchie	Very limited		Somewhat limited	
	Flooding	1.00	Flooding	0.60
	Low strength	1.00	Cutbanks cave	0.10
SaB:				
Sequatchie	Very limited		Somewhat limited	
	Low strength	1.00	Cutbanks cave	0.10
ScB:				
Shack	Very limited		Very limited	
	Low strength	0.99	Depth to saturated zone	1.00
	Depth to saturated zone	0.35	Cutbanks cave	1.00
Guthrie	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Low strength	1.00	Cutbanks cave	1.00
SdD:				
Shack	Very limited		Very limited	
	Low strength	0.99	Depth to saturated zone	1.00
	Slope	0.37		
	Depth to saturated zone	0.35	Cutbanks cave	1.00
			Slope	0.37
Bodine	Somewhat limited		Very limited	
	Slope	0.37	Cutbanks cave	1.00
			Slope	0.37
Minvale	Somewhat limited		Very limited	
	Slope	0.37	Cutbanks cave	1.00
			Slope	0.37

Roads and Streets and Shallow Excavations—Continued

Map symbol and soil name	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value
SdE:				
Shack	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Low strength	0.99	Depth to saturated zone	1.00
	Depth to saturated zone	0.35	Cutbanks cave	1.00
Bodine	Very limited		Very limited	
	Slope	1.00	Slope	1.00
			Cutbanks cave	1.00
Minvale	Very limited		Very limited	
	Slope	1.00	Slope	1.00
			Cutbanks cave	1.00
SeA:				
Shellbluff	Very limited		Somewhat limited	
	Flooding	1.00	Flooding	0.60
	Low strength	1.00	Cutbanks cave	0.10
			Depth to saturated zone	0.06
Ketona	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Flooding	0.60
	Low strength	1.00	Too clayey	0.12
	Shrink-swell	1.00	Cutbanks cave	0.10
ShC:				
Shelocta	Somewhat limited		Somewhat limited	
	Low strength	0.24	Cutbanks cave	0.10
	Slope	0.04	Slope	0.04
SpD:				
Sipsey	Somewhat limited		Somewhat limited	
	Slope	0.16	Slope	0.16
			Depth to soft bedrock	0.15
			Cutbanks cave	0.10
SpE:				
Sipsey	Very limited		Very limited	
	Slope	1.00	Slope	1.00
			Depth to soft bedrock	0.15
			Cutbanks cave	0.10
SuB:				
Subligna	Very limited		Very limited	
	Flooding	1.00	Cutbanks cave	1.00
	Frost action	0.50	Flooding	0.60
SxA:				
Suches	Very limited		Very limited	
	Flooding	1.00	Cutbanks cave	1.00
			Flooding	0.60

Roads and Streets and Shallow Excavations—Continued

Map symbol and soil name	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value
TnB:				
Townley	Very limited		Somewhat limited	
	Low strength	1.00	Depth to soft bedrock	0.71
	Shrink-swell	0.50	Cutbanks cave	0.10
TnD:				
Townley	Very limited		Somewhat limited	
	Low strength	1.00	Depth to soft bedrock	0.71
	Shrink-swell	0.50	Slope	0.37
	Slope	0.37	Cutbanks cave	0.10
TnE:				
Townley	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Low strength	1.00	Depth to soft bedrock	0.71
	Shrink-swell	0.50	Cutbanks cave	0.10
TnF:				
Townley	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Low strength	1.00	Depth to soft bedrock	0.71
	Shrink-swell	0.50	Cutbanks cave	0.10
TrC:				
Townley	Very limited		Somewhat limited	
	Low strength	1.00	Depth to soft bedrock	0.71
	Shrink-swell	0.50	Cutbanks cave	0.10
	Slope	0.04	Slope	0.04
Urban land	Not Rated		Not rated	
TsE:				
Tsali	Very limited		Very limited	
	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
	Slope	1.00	Slope	1.00
	Frost action	0.50	Cutbanks cave	0.10
	Low strength	0.24		
TsF:				
Tsali	Very limited		Very limited	
	Slope	1.00	Depth to soft bedrock	1.00
	Depth to soft bedrock	1.00	Slope	1.00
	Frost action	0.50	Cutbanks cave	0.10
	Low strength	0.24		
TsG:				
Tsali	Very limited		Very limited	
	Slope	1.00	Depth to soft bedrock	1.00
	Depth to soft bedrock	1.00	Slope	1.00
	Frost action	0.50	Cutbanks cave	0.10
	Low strength	0.24		

Roads and Streets and Shallow Excavations—Continued

Map symbol and soil name	Local roads and streets		Shallow excavations	
	Rating class and limiting features	Value	Rating class and limiting features	Value
Uc:				
Ultic Udarents, channery	Not Rated		Not rated	
Ug:				
Ultic Udarents, gravelly	Not Rated		Not rated	
UrC:				
Urban land	Not Rated		Not rated	
WaA:				
Wax	Very limited		Very limited	
	Flooding	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	0.01	Cutbanks cave	1.00
			Flooding	0.60
			Dense layer	0.50
Guthrie	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Cutbanks cave	1.00
	Low strength	1.00	Flooding	0.60
WaB:				
Wax	Somewhat limited		Very limited	
	Flooding	0.40	Depth to saturated zone	1.00
	Depth to saturated zone	0.01	Cutbanks cave	1.00
			Dense layer	0.50
WnB:				
Waynesboro	Somewhat limited		Somewhat limited	
	Low strength	0.50	Cutbanks cave	0.10
WnD:				
Waynesboro	Somewhat limited		Somewhat limited	
	Low strength	0.50	Slope	0.37
	Slope	0.37	Cutbanks cave	0.10
WsC:				
Waynesboro	Somewhat limited		Somewhat limited	
	Low strength	0.50	Cutbanks cave	0.10
	Slope	0.04	Slope	0.04
Urban land	Not Rated		Not rated	
WtA:				
Whitwell	Very limited		Very limited	
	Flooding	1.00	Depth to saturated zone	1.00
	Low strength	0.99	Flooding	0.60
	Depth to saturated zone	0.68	Cutbanks cave	0.10

Roads and Streets and Shallow Excavations—Continued

Map symbol and soil name	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value
Guthrie	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Cutbanks cave	1.00
	Low strength	1.00	Flooding	0.60
Ketona	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Flooding	0.60
	Low strength	1.00	Too clayey	0.12
	Shrink-swell	1.00	Cutbanks cave	0.10
WtB:				
Whitwell	Very limited		Very limited	
	Low strength	0.99	Depth to saturated zone	1.00
	Depth to saturated zone	0.68	Cutbanks cave	0.10
WuA:				
Whitwell	Very limited		Very limited	
	Flooding	1.00	Depth to saturated zone	1.00
	Low strength	0.99	Flooding	0.60
	Depth to saturated zone	0.68	Cutbanks cave	0.10
Urban land	Not Rated		Not rated	
Ketona	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Flooding	0.60
	Low strength	1.00	Too clayey	0.12
	Shrink-swell	1.00	Cutbanks cave	0.10

Sewage Disposal

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
AbB:				
Albertville---------	Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Depth to soft bedrock	0.71
	Slow water movement	1.00	Slope	0.32
	Depth to bedrock	0.89	Depth to saturated zone	0.01
AbD:				
Albertville---------	Very limited		Very limited	
	Depth to saturated zone	1.00	Slope	1.00
	Slow water movement	1.00	Depth to soft bedrock	0.71
	Depth to bedrock	0.89	Depth to saturated zone	0.01
	Slope	0.37		
AnB:				
Allen---------------	Somewhat limited		Somewhat limited	
	Slow water movement	0.46	Seepage	0.53
			Slope	0.32
AnD:				
Allen---------------	Somewhat limited		Very limited	
	Slow water movement	0.46	Slope	1.00
	Slope	0.37	Seepage	0.53
AnE:				
Allen---------------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Slow water movement	0.46	Seepage	0.53
ArC:				
Allen---------------	Somewhat limited		Very limited	
	Slow water movement	0.46	Slope	1.00
	Slope	0.04	Seepage	0.53
Urban land----------	Not rated		Not rated	
ArE:				
Allen---------------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Slow water movement	0.46	Seepage	0.53
Urban land----------	Not rated		Not rated	

Sewage Disposal—Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
AuA:				
Arkabutla	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Slow water movement	0.46	Seepage	0.53
Ketona	Very limited		Very limited	
	Flooding	1.00	Ponding	1.00
	Slow water movement	1.00	Flooding	1.00
	Ponding	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00		
BoD:				
Bodine	Very limited		Very limited	
	Seepage, bottom layer	1.00	Seepage	1.00
	Slope	0.37	Slope	1.00
BoE:				
Bodine	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Seepage, bottom layer	1.00	Seepage	1.00
BoF:				
Bodine	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Seepage, bottom layer	1.00	Seepage	1.00
CaA:				
Capshaw	Very limited		Very limited	
	Slow water movement	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Depth to hard bedrock	0.08
	Depth to bedrock	0.52		
Ketona	Very limited		Very limited	
	Slow water movement	1.00	Ponding	1.00
	Ponding	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00		
Guthrie	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Depth to cemented pan	1.00	Depth to cemented pan	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Slow water movement	1.00		

Sewage Disposal—Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
CaB:				
Capshaw	Very limited		Very limited	
	Slow water movement	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Slope	0.32
	Depth to bedrock	0.52	Depth to hard bedrock	0.08
Ketona	Very limited		Very limited	
	Slow water movement	1.00	Ponding	1.00
	Ponding	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00		
Guthrie	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Depth to cemented pan	1.00	Depth to cemented pan	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Slow water movement	1.00		
CkE:				
Cataska	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to hard bedrock	1.00
	Seepage, bottom layer	1.00	Depth to soft bedrock	1.00
	Slope	1.00	Seepage	1.00
			Slope	1.00
CkF:				
Cataska	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to hard bedrock	1.00
	Slope	1.00	Depth to soft bedrock	1.00
	Seepage, bottom layer	1.00	Slope	1.00
			Seepage	1.00
CkG:				
Cataska	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to hard bedrock	1.00
	Slope	1.00	Depth to soft bedrock	1.00
	Seepage, bottom layer	1.00	Slope	1.00
			Seepage	1.00
CnA:				
Chenneby	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Slow water movement	0.46	Seepage	0.53

Sewage Disposal—Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
Ketona--------------	Very limited		Very limited	
	Flooding	1.00	Ponding	1.00
	Slow water movement	1.00	Flooding	1.00
	Ponding	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00		
CoA:				
Chenneby------------	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Slow water movement	0.46	Seepage	0.53
Urban land----------	Not rated		Not rated	
Ketona--------------	Very limited		Very limited	
	Flooding	1.00	Ponding	1.00
	Slow water movement	1.00	Flooding	1.00
	Ponding	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00		
CrE:				
Cheoah--------------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Seepage, bottom layer	1.00	Seepage	1.00
	Depth to bedrock	0.30		
Edneytown-----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Seepage, bottom layer	1.00	Seepage	1.00
	Slow water movement	0.46		
CsC:				
Conasauga-----------	Very limited		Very limited	
	Slow water movement	1.00	Depth to soft bedrock	1.00
	Depth to saturated zone	1.00	Slope	1.00
	Depth to bedrock	1.00	Depth to saturated zone	0.36
	Slope	0.01		
CuC:				
Conasauga-----------	Very limited		Very limited	
	Slow water movement	1.00	Depth to soft bedrock	1.00
	Depth to saturated zone	1.00	Slope	0.92
	Depth to bedrock	1.00	Depth to saturated zone	0.36
Urban land----------	Not rated		Not rated	

Sewage Disposal—Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
CvB:				
Craigsville---------	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Seepage, bottom layer	1.00	Seepage	1.00
	Filtering capacity	1.00	Large stones content	0.22
	Large stones content	0.02	Slope	0.08
CxB:				
Cunningham----------	Very limited		Somewhat limited	
	Slow water movement	1.00	Slope	0.32
	Depth to bedrock	0.63	Depth to soft bedrock	0.18
CxD:				
Cunningham----------	Very limited		Very limited	
	Slow water movement	1.00	Slope	1.00
	Depth to bedrock	0.63	Depth to soft bedrock	0.18
	Slope	0.37		
CxE:				
Cunningham----------	Very limited		Very limited	
	Slow water movement	1.00	Slope	1.00
	Slope	1.00	Depth to soft bedrock	0.18
	Depth to bedrock	0.63		
CxF:				
Cunningham----------	Very limited		Very limited	
	Slow water movement	1.00	Slope	1.00
	Slope	1.00	Depth to soft bedrock	0.18
	Depth to bedrock	0.63		
DeB:				
Dewey---------------	Somewhat limited		Somewhat limited	
	Slow water movement	0.46	Seepage	0.53
			Slope	0.32
DeD:				
Dewey---------------	Somewhat limited		Very limited	
	Slow water movement	0.46	Slope	1.00
	Slope	0.37	Seepage	0.53
DoA:				
Docena--------------	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Slow water movement	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Seepage	0.21

Sewage Disposal—Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
Ketona	Very limited		Very limited	
	Flooding	1.00	Ponding	1.00
	Slow water movement	1.00	Flooding	1.00
	Ponding	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00		
DsB:				
Docena	Very limited		Very limited	
	Slow water movement	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Slope	0.32
			Seepage	0.21
Conasauga	Very limited		Very limited	
	Slow water movement	1.00	Depth to soft bedrock	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	0.36
	Depth to bedrock	1.00	Slope	0.32
Ketona	Very limited		Very limited	
	Slow water movement	1.00	Ponding	1.00
	Ponding	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00		
Du:				
Dumps	Not rated		Not rated	
EdF:				
Edneytown	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Seepage, bottom layer	1.00	Seepage	1.00
	Slow water movement	0.46		
EdG:				
Edneytown	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Seepage, bottom layer	1.00	Seepage	1.00
	Slow water movement	0.46		
EnB:				
Enders	Very limited		Somewhat limited	
	Slow water movement	1.00	Depth to soft bedrock	0.93
	Depth to bedrock	0.98	Slope	0.32
EnD:				
Enders	Very limited		Very limited	
	Slow water movement	1.00	Slope	1.00
	Depth to bedrock	0.98	Depth to soft bedrock	0.93
	Slope	0.37		

Sewage Disposal—Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
EuC:				
Enders	Very limited		Very limited	
	Slow water movement	1.00	Slope	1.00
	Depth to bedrock	0.98	Depth to soft bedrock	0.93
	Slope	0.04		
Urban land	Not rated		Not rated	
FtB:				
Fullerton	Somewhat limited		Somewhat limited	
	Slow water movement	0.46	Seepage	0.53
			Slope	0.32
FtD:				
Fullerton	Somewhat limited		Very limited	
	Slow water movement	0.46	Slope	1.00
	Slope	0.37	Seepage	0.53
FtE:				
Fullerton	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Slow water movement	0.46	Seepage	0.53
FtF:				
Fullerton	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Slow water movement	0.46	Seepage	0.53
FuE:				
Fullerton	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Slow water movement	0.46	Seepage	0.53
Urban land	Not rated		Not rated	
GrA:				
Guthrie	Very limited		Very limited	
	Flooding	1.00	Ponding	1.00
	Ponding	1.00	Depth to cemented pan	1.00
	Depth to cemented pan	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Slow water movement	1.00		
HcB:				
Hanceville	Somewhat limited		Somewhat limited	
	Slow water movement	0.46	Seepage	0.53
			Slope	0.32

Sewage Disposal—Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
HcD:				
Hanceville	Somewhat limited		Very limited	
	Slow water movement	0.46	Slope	1.00
	Slope	0.37	Seepage	0.53
HcE:				
Hanceville	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Slow water movement	0.46	Seepage	0.53
HnC:				
Hanceville	Somewhat limited		Very limited	
	Slow water movement	0.46	Slope	1.00
	Slope	0.04	Seepage	0.53
Urban land	Not rated		Not rated	
HrF:				
Hector	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to hard bedrock	1.00
	Seepage, bottom layer	1.00	Seepage	1.00
	Slope	1.00	Slope	1.00
Townley	Very limited		Very limited	
	Slow water movement	1.00	Depth to soft bedrock	1.00
	Depth to bedrock	1.00	Slope	1.00
	Slope	1.00		
Rock outcrop	Not rated		Not rated	
HsB:				
Holston	Somewhat limited		Somewhat limited	
	Slow water movement	0.46	Seepage	0.53
			Slope	0.32
HsD:				
Holston	Somewhat limited		Very limited	
	Slow water movement	0.46	Slope	1.00
	Slope	0.37	Seepage	0.53
JfF:				
Jefferson	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Seepage, bottom layer	1.00	Seepage	1.00
JfG:				
Jefferson	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Seepage, bottom layer	1.00	Seepage	1.00

Sewage Disposal—Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
JsE:				
Junaluska-----------	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to soft bedrock	1.00
	Slope	1.00	Slope	1.00
	Slow water movement	0.46	Seepage	0.53
JsF:				
Junaluska-----------	Very limited		Very limited	
	Slope	1.00	Depth to soft bedrock	1.00
	Depth to bedrock	1.00	Slope	1.00
	Slow water movement	0.46	Seepage	0.53
JsG:				
Junaluska-----------	Very limited		Very limited	
	Slope	1.00	Depth to soft bedrock	1.00
	Depth to bedrock	1.00	Slope	1.00
	Slow water movement	0.46	Seepage	0.53
JtE:				
Junaluska-----------	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to soft bedrock	1.00
	Slope	1.00	Slope	1.00
	Slow water movement	0.46	Seepage	0.53
Tsali---------------	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to soft bedrock	1.00
	Slope	1.00	Slope	1.00
			Seepage	0.53
JtF:				
Junaluska-----------	Very limited		Very limited	
	Slope	1.00	Depth to soft bedrock	1.00
	Depth to bedrock	1.00	Slope	1.00
	Slow water movement	0.46	Seepage	0.53
Tsali---------------	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to soft bedrock	1.00
	Slope	1.00	Slope	1.00
			Seepage	0.53
KtA:				
Ketona--------------	Very limited		Very limited	
	Flooding	1.00	Ponding	1.00
	Slow water movement	1.00	Flooding	1.00
	Ponding	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00		

Sewage Disposal—Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
LyE:				
Lily	Very limited		Very limited	
	Seepage, bottom layer	1.00	Depth to hard bedrock	1.00
	Depth to bedrock	1.00	Seepage	1.00
	Slope	1.00	Slope	1.00
MnC:				
Minvale	Somewhat limited		Very limited	
	Slow water movement	0.46	Slope	1.00
	Slope	0.04	Seepage	0.53
Urban land	Not rated		Not rated	
MoF:				
Montevallo	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to soft bedrock	1.00
	Slope	1.00	Slope	1.00
MtD:				
Montevallo	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to soft bedrock	1.00
	Slope	0.37	Slope	1.00
Townley	Very limited		Very limited	
	Slow water movement	1.00	Depth to soft bedrock	1.00
	Depth to bedrock	1.00	Slope	1.00
	Slope	0.37		
MtE:				
Montevallo	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to soft bedrock	1.00
	Slope	1.00	Slope	1.00
Townley	Very limited		Very limited	
	Slow water movement	1.00	Depth to soft bedrock	1.00
	Slope	1.00	Slope	1.00
	Depth to bedrock	1.00		
MuE:				
Montevallo	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to soft bedrock	1.00
	Slope	1.00	Slope	1.00
Urban land	Not rated		Not rated	
NaD:				
Nauvoo	Somewhat limited		Very limited	
	Depth to bedrock	0.47	Slope	1.00
	Slow water movement	0.46	Seepage	0.53
	Slope	0.37	Depth to soft bedrock	0.05

Sewage Disposal—Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
NaE:				
Nauvoo	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Depth to bedrock	0.47	Seepage	0.53
	Slow water movement	0.46	Depth to soft bedrock	0.05
NeB:				
Nella	Somewhat limited		Somewhat limited	
	Slow water movement	0.46	Seepage	0.53
			Slope	0.32
NeD:				
Nella	Somewhat limited		Very limited	
	Slow water movement	0.46	Slope	1.00
			Seepage	0.53
	Slope	0.37		
NeE:				
Nella	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Slow water movement	0.46	Seepage	0.53
NeF:				
Nella	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Slow water movement	0.46	Seepage	0.53
NtF:				
Nella	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Slow water movement	0.46	Seepage	0.53
Hector	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to hard bedrock	1.00
	Slope	1.00		
	Seepage, bottom layer	1.00	Slope	1.00
			Seepage	1.00
Townley	Very limited		Very limited	
	Slow water movement	1.00	Depth to soft bedrock	1.00
	Slope	1.00	Slope	1.00
	Depth to bedrock	1.00		
PaE:				
Panama	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Slow water movement	1.00	Seepage	0.53
PaF:				
Panama	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Slow water movement	1.00	Seepage	0.53

Sewage Disposal—Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
PcD:				
Pigeonroost	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to soft bedrock	1.00
	Slow water movement	0.46	Slope	1.00
	Slope	0.16	Seepage	0.53
Cheoah	Very limited		Very limited	
	Seepage, bottom layer	1.00	Seepage	1.00
	Depth to bedrock	0.30	Slope	1.00
	Slope	0.16		
Qu:				
Pits, quarries	Not rated		Not rated	
Rk:				
Rock outcrop	Not rated		Not rated	
SaA:				
Sequatchie	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Seepage, bottom layer	1.00	Seepage	1.00
	Slow water movement	0.46		
SaB:				
Sequatchie	Very limited		Very limited	
	Seepage, bottom layer	1.00	Seepage	1.00
	Slow water movement	0.46	Slope	0.32
ScB:				
Shack	Very limited		Very limited	
	Depth to cemented pan	1.00	Depth to cemented pan	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	0.88
	Slow water movement	1.00	Seepage	0.53
			Slope	0.32
Guthrie	Very limited		Very limited	
	Ponding	1.00	Ponding	1.00
	Depth to cemented pan	1.00	Depth to cemented pan	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Slow water movement	1.00		

Sewage Disposal—Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
SdD:				
Shack----------------	Very limited		Very limited	
	Depth to cemented pan	1.00	Depth to cemented pan	1.00
	Depth to saturated zone	1.00	Slope	1.00
	Slow water movement	1.00	Depth to saturated zone	0.88
	Slope	0.37	Seepage	0.53
Bodine---------------	Very limited		Very limited	
	Seepage, bottom layer	1.00	Seepage	1.00
	Slope	0.37	Slope	1.00
Minvale--------------	Somewhat limited		Very limited	
	Slow water movement	0.46	Slope	1.00
	Slope	0.37	Seepage	0.53
SdE:				
Shack----------------	Very limited		Very limited	
	Depth to cemented pan	1.00	Depth to cemented pan	1.00
	Depth to saturated zone	1.00	Slope	1.00
	Slope	1.00	Depth to saturated zone	0.88
	Slow water movement	1.00	Seepage	0.53
Bodine---------------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Seepage, bottom layer	1.00	Seepage	1.00
Minvale--------------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Slow water movement	0.46	Seepage	0.53
SeA:				
Shellbluff-----------	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Slow water movement	0.46	Seepage	0.53
	Depth to saturated zone	0.16		
Ketona---------------	Very limited		Very limited	
	Flooding	1.00	Ponding	1.00
	Slow water movement	1.00	Flooding	1.00
	Ponding	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00		

Sewage Disposal—Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
ShC:				
Shelocta------------	Very limited		Very limited	
	Seepage, bottom layer	1.00	Seepage	1.00
	Slow water movement	0.46	Slope	1.00
	Slope	0.04		
SpD:				
Sipsey--------------	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to soft bedrock	1.00
	Slow water movement	0.46	Seepage	1.00
	Slope	0.16	Slope	1.00
SpE:				
Sipsey--------------	Very limited		Very limited	
	Slope	1.00	Depth to soft bedrock	1.00
	Depth to bedrock	1.00	Slope	1.00
	Slow water movement	0.46	Seepage	1.00
SuB:				
Subligna------------	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Filtering capacity	1.00	Seepage	1.00
	Seepage, bottom layer	1.00	Slope	0.08
SxA:				
Suches--------------	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Slow water movement	0.46	Seepage	0.53
TnB:				
Townley-------------	Very limited		Very limited	
	Slow water movement	1.00	Depth to soft bedrock	1.00
	Depth to bedrock	1.00	Slope	0.32
TnD:				
Townley-------------	Very limited		Very limited	
	Slow water movement	1.00	Depth to soft bedrock	1.00
	Depth to bedrock	1.00	Slope	1.00
	Slope	0.37		
TnE:				
Townley-------------	Very limited		Very limited	
	Slow water movement	1.00	Depth to soft bedrock	1.00
	Slope	1.00	Slope	1.00
	Depth to bedrock	1.00		

Sewage Disposal—Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
TnF:				
Townley	Very limited		Very limited	
	Slow water movement	1.00	Depth to soft bedrock	1.00
	Slope	1.00	Slope	1.00
	Depth to bedrock	1.00		
TrC:				
Townley	Very limited		Very limited	
	Slow water movement	1.00	Depth to soft bedrock	1.00
	Depth to bedrock	1.00	Slope	1.00
	Slope	0.04		
Urban land	Not rated		Not rated	
TsE:				
Tsali	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to soft bedrock	1.00
	Slope	1.00	Slope	1.00
			Seepage	0.53
TsF:				
Tsali	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to soft bedrock	1.00
	Slope	1.00	Slope	1.00
			Seepage	0.53
TsG:				
Tsali	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to soft bedrock	1.00
	Slope	1.00	Slope	1.00
			Seepage	0.53
Uc:				
Ultic Udarents, channery	Not rated		Not rated	
Ug:				
Ultic Udarents, gravelly	Not rated		Not rated	
UrC:				
Urban land	Not rated		Not rated	
WaA:				
Wax	Very limited		Very limited	
	Flooding	1.00	Depth to cemented pan	1.00
	Slow water movement	1.00	Flooding	1.00
	Depth to cemented pan	1.00	Seepage	0.53
	Depth to saturated zone	1.00	Depth to saturated zone	0.25

Sewage Disposal—Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
Guthrie-------------	Very limited		Very limited	
	Flooding	1.00	Ponding	1.00
	Ponding	1.00	Depth to cemented pan	1.00
	Depth to cemented pan	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Slow water movement	1.00		
WaB:				
Wax-----------------	Very limited		Very limited	
	Slow water movement	1.00	Depth to cemented pan	1.00
	Depth to cemented pan	1.00	Seepage	0.53
	Depth to saturated zone	1.00	Flooding	0.40
	Flooding	0.40	Slope	0.32
			Depth to saturated zone	0.25
WnB:				
Waynesboro----------	Somewhat limited		Somewhat limited	
	Slow water movement	0.46	Seepage	0.53
			Slope	0.32
WnD:				
Waynesboro----------	Somewhat limited		Very limited	
	Slow water movement	0.46	Slope	1.00
	Slope	0.37	Seepage	0.53
WsC:				
Waynesboro----------	Somewhat limited		Very limited	
	Slow water movement	0.46	Slope	1.00
	Slope	0.04	Seepage	0.53
Urban land----------	Not rated		Not rated	
WtA:				
Whitwell------------	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Slow water movement	0.46	Seepage	0.53
Guthrie-------------	Very limited		Very limited	
	Flooding	1.00	Ponding	1.00
	Ponding	1.00	Depth to cemented pan	1.00
	Depth to cemented pan	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Slow water movement	1.00		

Sewage Disposal—Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
Ketona--------------	Very limited		Very limited	
	Flooding	1.00	Ponding	1.00
	Slow water movement	1.00	Flooding	1.00
	Ponding	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00		
WtB:				
Whitwell------------	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Slow water movement	0.46	Seepage	0.53
			Slope	0.32
WuA:				
Whitwell------------	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Slow water movement	0.46	Seepage	0.53
Urban land----------	Not rated		Not rated	
Ketona--------------	Very limited		Very limited	
	Flooding	1.00	Ponding	1.00
	Slow water movement	1.00	Flooding	1.00
	Ponding	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00		

Source of Sand, Roadfill, and Topsoil

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 0.99. The smaller the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Potential source of sand		Potential source of roadfill		Potential source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
AbB:						
Albertville----------	Poor		Poor		Poor	
	Thickest layer	0.00	Low strength	0.00	Too clayey	0.00
	Bottom layer	0.00	Depth to bedrock	0.29	Too acid	0.88
			Shrink-swell	0.87	Wetness depth	0.99
			Wetness depth	0.99		
AbD:						
Albertville----------	Poor		Poor		Poor	
	Thickest layer	0.00	Low strength	0.00	Too clayey	0.00
	Bottom layer	0.00	Depth to bedrock	0.29	Slope	0.63
			Shrink-swell	0.87	Too acid	0.88
			Wetness depth	0.99	Wetness depth	0.99
AnB:						
Allen----------------	Poor		Fair		Fair	
	Thickest layer	0.00	Low strength	0.76	Too clayey	0.39
	Bottom layer	0.00			Too acid	0.76
					Rock fragments	0.88
AnD:						
Allen----------------	Poor		Fair		Fair	
	Thickest layer	0.00	Low strength	0.76	Too clayey	0.39
	Bottom layer	0.00			Slope	0.63
					Too acid	0.76
					Rock fragments	0.88
AnE:						
Allen----------------	Poor		Fair		Poor	
	Thickest layer	0.00	Slope	0.08	Slope	0.00
	Bottom layer	0.00	Low strength	0.76	Too clayey	0.39
					Too acid	0.76
					Rock fragments	0.88
ArC:						
Allen----------------	Poor		Fair		Fair	
	Thickest layer	0.00	Low strength	0.76	Too clayey	0.39
	Bottom layer	0.00			Too acid	0.76
					Rock fragments	0.88
					Slope	0.96
Urban land-----------	Not Rated		Not rated		Not Rated	
ArE:						
Allen----------------	Poor		Fair		Poor	
	Thickest layer	0.00	Slope	0.08	Slope	0.00
	Bottom layer	0.00	Low strength	0.76	Too clayey	0.39
					Too acid	0.76
					Rock fragments	0.88
Urban land-----------	Not Rated		Not rated		Not Rated	

Source of Sand, Roadfill, and Topsoil—Continued

Map symbol and soil name	Potential source of sand: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
AuA:						
Arkabutla------------	Poor		Poor		Fair	
	Thickest layer	0.00	Low strength	0.00	Wetness depth	0.01
	Bottom layer	0.00	Wetness depth	0.01	Too clayey	0.57
					Too acid	0.88
Ketona---------------	Poor		Poor		Poor	
	Thickest layer	0.00	Wetness depth	0.00	Too clayey	0.00
	Bottom layer	0.00	Low strength	0.00	Wetness depth	0.00
			Shrink-swell	0.12		
BoD:						
Bodine---------------	Poor		Fair		Poor	
	Thickest layer	0.00	Cobble content	0.96	Hard to reclaim (rock fragments)	0.00
	Bottom layer	0.00				
					Rock fragments	0.00
					Too clayey	0.39
					Slope	0.63
					Too acid	0.76
BoE:						
Bodine---------------	Poor		Fair		Poor	
	Thickest layer	0.00	Slope	0.08	Slope	0.00
	Bottom layer	0.00	Cobble content	0.96	Hard to reclaim (rock fragments)	0.00
					Rock fragments	0.00
					Too clayey	0.39
					Too acid	0.76
BoF:						
Bodine---------------	Poor		Poor		Poor	
	Thickest layer	0.00	Slope	0.00	Slope	0.00
	Bottom layer	0.00	Cobble content	0.96	Hard to reclaim (rock fragments)	0.00
					Rock fragments	0.00
					Too clayey	0.39
					Too acid	0.76
CaA:						
Capshaw--------------	Poor		Poor		Poor	
	Thickest layer	0.00	Low strength	0.00	Too clayey	0.00
	Bottom layer	0.00	Shrink-swell	0.92	Wetness depth	0.99
			Depth to bedrock	0.92		
			Wetness depth	0.99		
Ketona---------------	Poor		Poor		Poor	
	Thickest layer	0.00	Wetness depth	0.00	Too clayey	0.00
	Bottom layer	0.00	Low strength	0.00	Wetness depth	0.00
			Shrink-swell	0.12		
Guthrie--------------	Poor		Poor		Poor	
	Thickest layer	0.00	Wetness depth	0.00	Wetness depth	0.00
	Bottom layer	0.00	Depth to cemented pan	0.00	Depth to cemented pan	0.16
			Low strength	0.00	Too clayey	0.35

Source of Sand, Roadfill, and Topsoil—Continued

Map symbol and soil name	Potential source of sand: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
CaB:						
Capshaw	Poor		Poor		Poor	
	Thickest layer	0.00	Low strength	0.00	Too clayey	0.00
	Bottom layer	0.00	Shrink-swell	0.92	Wetness depth	0.99
			Depth to bedrock	0.92		
			Wetness depth	0.99		
Ketona	Poor		Poor		Poor	
	Thickest layer	0.00	Wetness depth	0.00	Too clayey	0.00
	Bottom layer	0.00	Low strength	0.00	Wetness depth	0.00
			Shrink-swell	0.12		
Guthrie	Poor		Poor		Poor	
	Thickest layer	0.00	Wetness depth	0.00	Wetness depth	0.00
	Bottom layer	0.00	Depth to cemented pan	0.00	Depth to cemented pan	0.16
			Low strength	0.00	Too clayey	0.35
CkE:						
Cataska	Poor		Poor		Poor	
	Thickest layer	0.00	Depth to bedrock	0.00	Rock fragments	0.00
	Bottom layer	0.00			Depth to bedrock	0.00
					Slope	0.00
					Too acid	0.76
CkF:						
Cataska	Poor		Poor		Poor	
	Thickest layer	0.00	Depth to bedrock	0.00	Slope	0.00
	Bottom layer	0.00	Slope	0.00	Rock fragments	0.00
					Depth to bedrock	0.00
					Too acid	0.76
CkG:						
Cataska	Poor		Poor		Poor	
	Thickest layer	0.00	Depth to bedrock	0.00	Slope	0.00
	Bottom layer	0.00	Slope	0.00	Rock fragments	0.00
					Depth to bedrock	0.00
					Too acid	0.76
CnA:						
Chenneby	Poor		Fair		Fair	
	Thickest layer	0.00	Wetness depth	0.24	Wetness depth	0.24
	Bottom layer	0.00			Too acid	0.98
Ketona	Poor		Poor		Poor	
	Thickest layer	0.00	Wetness depth	0.00	Too clayey	0.00
	Bottom layer	0.00	Low strength	0.00	Wetness depth	0.00
			Shrink-swell	0.12		
CoA:						
Chenneby	Poor		Fair		Fair	
	Thickest layer	0.00	Wetness depth	0.24	Wetness depth	0.24
	Bottom layer	0.00			Too acid	0.98
Urban land	Not Rated		Not rated		Not Rated	
Ketona	Poor		Poor		Poor	
	Thickest layer	0.00	Wetness depth	0.00	Too clayey	0.00
	Bottom layer	0.00	Low strength	0.00	Wetness depth	0.00
			Shrink-swell	0.12		

Source of Sand, Roadfill, and Topsoil—Continued

Map symbol and soil name	Potential source of sand		Potential source of roadfill		Potential source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
CrE:						
Cheoah---------------	Poor		Poor		Poor	
	Thickest layer	0.00	Slope	0.00	Slope	0.00
	Bottom layer	0.00			Rock fragments	0.88
					Hard to reclaim (rock fragments)	0.95
					Too acid	0.98
Edneytown------------	Poor		Poor		Poor	
	Thickest layer	0.00	Slope	0.00	Slope	0.00
	Bottom layer	0.00			Too clayey	0.59
					Too acid	0.76
					Rock fragments	0.99
CsC:						
Conasauga------------	Poor		Poor		Poor	
	Thickest layer	0.00	Low strength	0.00	Too clayey	0.00
	Bottom layer	0.00	Depth to bedrock	0.00	Wetness depth	0.80
			Wetness depth	0.80	Too acid	0.98
			Shrink-swell	0.87	Depth to bedrock	0.99
CuC:						
Conasauga------------	Poor		Poor		Poor	
	Thickest layer	0.00	Low strength	0.00	Too clayey	0.00
	Bottom layer	0.00	Depth to bedrock	0.00	Wetness depth	0.80
			Wetness depth	0.80	Too acid	0.98
			Shrink-swell	0.87	Depth to bedrock	0.99
Urban land-----------	Not Rated		Not rated		Not Rated	
CvB:						
Craigsville----------	Poor		Fair		Poor	
	Thickest layer	0.00	Cobble content	0.28	Rock fragments	0.00
	Bottom layer	0.00			Hard to reclaim (rock fragments)	0.00
					Too acid	0.98
CxB:						
Cunningham-----------	Poor		Poor		Poor	
	Thickest layer	0.00	Low strength	0.00	Too clayey	0.00
	Bottom layer	0.00	Depth to bedrock	0.82	Rock fragments	0.12
			Shrink-swell	0.89	Hard to reclaim (rock fragments)	0.68
					Too acid	0.88
CxD:						
Cunningham-----------	Poor		Poor		Poor	
	Thickest layer	0.00	Low strength	0.00	Too clayey	0.00
	Bottom layer	0.00	Depth to bedrock	0.82	Rock fragments	0.12
			Shrink-swell	0.89	Slope	0.63
					Hard to reclaim (rock fragments)	0.68
					Too acid	0.88

Source of Sand, Roadfill, and Topsoil—Continued

Map symbol and soil name	Potential source of sand: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
CxE:						
Cunningham	Poor		Poor		Poor	
	Thickest layer	0.00	Low strength	0.00	Slope	0.00
	Bottom layer	0.00	Slope	0.08	Too clayey	0.00
			Depth to bedrock	0.82	Rock fragments	0.12
			Shrink-swell	0.89	Hard to reclaim (rock fragments)	0.68
					Too acid	0.88
CxF:						
Cunningham	Poor		Poor		Poor	
	Thickest layer	0.00	Slope	0.00	Slope	0.00
	Bottom layer	0.00	Low strength	0.00	Too clayey	0.00
			Depth to bedrock	0.82	Rock fragments	0.12
			Shrink-swell	0.89	Hard to reclaim (rock fragments)	0.68
					Too acid	0.88
DeB:						
Dewey	Poor		Fair		Poor	
	Thickest layer	0.00	Low strength	0.50	Too clayey	0.00
	Bottom layer	0.00	Shrink-swell	0.87	Too acid	0.88
					Rock fragments	0.88
DeD:						
Dewey	Poor		Fair		Poor	
	Thickest layer	0.00	Low strength	0.50	Too clayey	0.00
	Bottom layer	0.00	Shrink-swell	0.87	Slope	0.63
					Too acid	0.88
					Rock fragments	0.88
DoA:						
Docena	Poor		Poor		Fair	
	Thickest layer	0.00	Low strength	0.00	Wetness depth	0.24
	Bottom layer	0.00	Wetness depth	0.24	Too clayey	0.59
			Shrink-swell	0.87	Too acid	0.98
Ketona	Poor		Poor		Poor	
	Thickest layer	0.00	Wetness depth	0.00	Too clayey	0.00
	Bottom layer	0.00	Low strength	0.00	Wetness depth	0.00
			Shrink-swell	0.12		
DsB:						
Docena	Poor		Poor		Fair	
	Thickest layer	0.00	Low strength	0.00	Wetness depth	0.24
	Bottom layer	0.00	Wetness depth	0.24	Too clayey	0.59
			Shrink-swell	0.87	Too acid	0.98
Conasauga	Poor		Poor		Poor	
	Thickest layer	0.00	Low strength	0.00	Too clayey	0.00
	Bottom layer	0.00	Depth to bedrock	0.00	Wetness depth	0.80
			Wetness depth	0.80	Too acid	0.98
			Shrink-swell	0.87	Depth to bedrock	0.99
Ketona	Poor		Poor		Poor	
	Thickest layer	0.00	Wetness depth	0.00	Too clayey	0.00
	Bottom layer	0.00	Low strength	0.00	Wetness depth	0.00
			Shrink-swell	0.12		
Du:						
Dumps	Not Rated		Not rated		Not Rated	

Source of Sand, Roadfill, and Topsoil—Continued

Map symbol and soil name	Potential source of sand		Potential source of roadfill		Potential source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
EdF:						
Edneytown------------	Poor		Poor		Poor	
	Thickest layer	0.00	Slope	0.00	Slope	0.00
	Bottom layer	0.00			Too clayey	0.59
					Too acid	0.76
					Rock fragments	0.99
EdG:						
Edneytown------------	Poor		Poor		Poor	
	Thickest layer	0.00	Slope	0.00	Slope	0.00
	Bottom layer	0.00			Too clayey	0.59
					Too acid	0.76
					Rock fragments	0.99
EnB:						
Enders---------------	Poor		Poor		Poor	
	Thickest layer	0.00	Low strength	0.00	Too clayey	0.00
	Bottom layer	0.00	Depth to bedrock	0.07	Hard to reclaim (rock fragments)	0.88
			Shrink-swell	0.12	Too acid	0.88
					Rock fragments	0.99
EnD:						
Enders---------------	Poor		Poor		Poor	
	Thickest layer	0.00	Low strength	0.00	Too clayey	0.00
	Bottom layer	0.00	Depth to bedrock	0.07	Slope	0.63
			Shrink-swell	0.12	Hard to reclaim (rock fragments)	0.88
					Too acid	0.88
					Rock fragments	0.99
EuC:						
Enders---------------	Poor		Poor		Poor	
	Thickest layer	0.00	Low strength	0.00	Too clayey	0.00
	Bottom layer	0.00	Depth to bedrock	0.07	Hard to reclaim (rock fragments)	0.88
			Shrink-swell	0.12	Too acid	0.88
					Slope	0.96
					Rock fragments	0.99
Urban land-----------	Not Rated		Not rated		Not Rated	
FtB:						
Fullerton------------	Poor		Fair		Poor	
	Thickest layer	0.00	Low strength	0.50	Too clayey	0.00
	Bottom layer	0.00	Shrink-swell	0.87	Rock fragments	0.00
					Too acid	0.88
					Hard to reclaim (rock fragments)	0.92
FtD:						
Fullerton------------	Poor		Fair		Poor	
	Thickest layer	0.00	Low strength	0.50	Too clayey	0.00
	Bottom layer	0.00	Shrink-swell	0.87	Rock fragments	0.00
					Slope	0.63
					Too acid	0.88
					Hard to reclaim (rock fragments)	0.92

Source of Sand, Roadfill, and Topsoil—Continued

Map symbol and soil name	Potential source of sand: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
FtE:						
Fullerton------------	Poor		Fair		Poor	
	Thickest layer	0.00	Slope	0.08	Slope	0.00
	Bottom layer	0.00	Low strength	0.50	Too clayey	0.00
			Shrink-swell	0.87	Rock fragments	0.00
					Too acid	0.88
					Hard to reclaim (rock fragments)	0.92
FtF:						
Fullerton------------	Poor		Poor		Poor	
	Thickest layer	0.00	Slope	0.00	Slope	0.00
	Bottom layer	0.00	Low strength	0.50	Too clayey	0.00
			Shrink-swell	0.87	Rock fragments	0.00
					Too acid	0.88
					Hard to reclaim (rock fragments)	0.92
FuE:						
Fullerton------------	Poor		Fair		Poor	
	Thickest layer	0.00	Slope	0.08	Slope	0.00
	Bottom layer	0.00	Low strength	0.50	Too clayey	0.00
			Shrink-swell	0.87	Rock fragments	0.00
					Too acid	0.88
					Hard to reclaim (rock fragments)	0.92
Urban land-----------	Not Rated		Not rated		Not Rated	
GrA:						
Guthrie--------------	Poor		Poor		Poor	
	Thickest layer	0.00	Wetness depth	0.00	Wetness depth	0.00
	Bottom layer	0.00	Depth to cemented pan	0.00	Depth to cemented pan	0.16
			Low strength	0.00	Too clayey	0.35
HcB:						
Hanceville-----------	Poor		Poor		Poor	
	Thickest layer	0.00	Low strength	0.00	Too clayey	0.00
	Bottom layer	0.00	Shrink-swell	0.87	Too acid	0.88
HcD:						
Hanceville-----------	Poor		Poor		Poor	
	Thickest layer	0.00	Low strength	0.00	Too clayey	0.00
	Bottom layer	0.00	Shrink-swell	0.87	Slope	0.63
					Too acid	0.88
HcE:						
Hanceville-----------	Poor		Poor		Poor	
	Thickest layer	0.00	Low strength	0.00	Slope	0.00
	Bottom layer	0.00	Slope	0.08	Too clayey	0.00
			Shrink-swell	0.87	Too acid	0.88
HnC:						
Hanceville-----------	Poor		Poor		Poor	
	Thickest layer	0.00	Low strength	0.00	Too clayey	0.00
	Bottom layer	0.00	Shrink-swell	0.87	Too acid	0.88
					Slope	0.96
Urban land-----------	Not Rated		Not rated		Not Rated	

Source of Sand, Roadfill, and Topsoil—Continued

Map symbol and soil name	Potential source of sand: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
HrF:						
Hector----------------	Poor		Poor		Poor	
	Thickest layer	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
	Bottom layer	0.00	Slope	0.50	Slope	0.00
					Rock fragments	0.00
					Too acid	0.98
Townley--------------	Poor		Poor		Poor	
	Thickest layer	0.00	Depth to bedrock	0.00	Too clayey	0.00
	Bottom layer	0.00	Low strength	0.00	Slope	0.00
			Slope	0.50	Depth to bedrock	0.29
			Shrink-swell	0.87	Rock fragments	0.50
					Too acid	0.88
Rock outcrop---------	Not Rated		Not rated		Not Rated	
			Slope	0.50		
HsB:						
Holston--------------	Poor		Good		Fair	
	Thickest layer	0.00			Too clayey	0.52
	Bottom layer	0.00			Rock fragments	0.88
					Too acid	0.98
HsD:						
Holston--------------	Poor		Good		Fair	
	Thickest layer	0.00			Too clayey	0.52
	Bottom layer	0.00			Slope	0.63
					Rock fragments	0.88
					Too acid	0.98
JfF:						
Jefferson------------	Poor		Poor		Poor	
	Thickest layer	0.00	Slope	0.00	Slope	0.00
	Bottom layer	0.00			Hard to reclaim (rock fragments)	0.00
					Rock fragments	0.00
					Too acid	0.98
JfG:						
Jefferson------------	Poor		Poor		Poor	
	Thickest layer	0.00	Slope	0.00	Slope	0.00
	Bottom layer	0.00			Hard to reclaim (rock fragments)	0.00
					Rock fragments	0.00
					Too acid	0.98
JsE:						
Junaluska------------	Poor		Poor		Poor	
	Thickest layer	0.00	Depth to bedrock	0.00	Slope	0.00
	Bottom layer	0.00	Low strength	0.76	Too clayey	0.35
					Depth to bedrock	0.46
					Rock fragments	0.50
					Too acid	0.76
JsF:						
Junaluska------------	Poor		Poor		Poor	
	Thickest layer	0.00	Slope	0.00	Slope	0.00
	Bottom layer	0.00	Depth to bedrock	0.00	Too clayey	0.35
			Low strength	0.76	Depth to bedrock	0.46
					Rock fragments	0.50
					Too acid	0.76

Source of Sand, Roadfill, and Topsoil—Continued

Map symbol and soil name	Potential source of sand: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
JsG:						
Junaluska------------	Poor		Poor		Poor	
	Thickest layer	0.00	Slope	0.00	Slope	0.00
	Bottom layer	0.00	Depth to bedrock	0.00	Too clayey	0.35
			Low strength	0.76	Depth to bedrock	0.46
					Rock fragments	0.50
					Too acid	0.76
JtE:						
Junaluska------------	Poor		Poor		Poor	
	Thickest layer	0.00	Depth to bedrock	0.00	Slope	0.00
	Bottom layer	0.00	Low strength	0.76	Too clayey	0.35
					Depth to bedrock	0.46
					Rock fragments	0.50
					Too acid	0.76
Tsali----------------	Poor		Poor		Poor	
	Thickest layer	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
	Bottom layer	0.00	Low strength	0.76	Slope	0.00
					Too clayey	0.52
					Too acid	0.88
					Rock fragments	0.99
JtF:						
Junaluska------------	Poor		Poor		Poor	
	Thickest layer	0.00	Slope	0.00	Slope	0.00
	Bottom layer	0.00	Depth to bedrock	0.00	Too clayey	0.35
			Low strength	0.76	Depth to bedrock	0.46
					Rock fragments	0.50
					Too acid	0.76
Tsali----------------	Poor		Poor		Poor	
	Thickest layer	0.00	Depth to bedrock	0.00	Slope	0.00
	Bottom layer	0.00	Slope	0.00	Depth to bedrock	0.00
			Low strength	0.76	Too clayey	0.52
					Too acid	0.88
					Rock fragments	0.99
KtA:						
Ketona---------------	Poor		Poor		Poor	
	Thickest layer	0.00	Wetness depth	0.00	Too clayey	0.00
	Bottom layer	0.00	Low strength	0.00	Wetness depth	0.00
			Shrink-swell	0.12		
LyE:						
Lily-----------------	Poor		Poor		Poor	
	Thickest layer	0.00	Depth to bedrock	0.00	Slope	0.00
	Bottom layer	0.00			Rock fragments	0.88
					Too acid	0.88
					Depth to bedrock	0.99
MnC:						
Minvale--------------	Poor		Good		Poor	
	Thickest layer	0.00			Rock fragments	0.00
	Bottom layer	0.00			Too clayey	0.01
					Hard to reclaim (rock fragments)	0.08
					Too acid	0.88
					Slope	0.96
Urban land-----------	Not Rated		Not rated		Not Rated	

Source of Sand, Roadfill, and Topsoil—Continued

Map symbol and soil name	Potential source of sand		Potential source of roadfill		Potential source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
MoF:						
Montevallo-----------	Poor		Poor		Poor	
	Thickest layer	0.00	Depth to bedrock	0.00	Slope	0.00
	Bottom layer	0.00	Slope	0.00	Depth to bedrock	0.00
					Rock fragments	0.00
					Too acid	0.88
MtD:						
Montevallo-----------	Poor		Poor		Poor	
	Thickest layer	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
	Bottom layer	0.00			Rock fragments	0.00
					Slope	0.63
					Too acid	0.88
Townley--------------	Poor		Poor		Poor	
	Thickest layer	0.00	Depth to bedrock	0.00	Too clayey	0.00
	Bottom layer	0.00	Low strength	0.00	Depth to bedrock	0.29
			Shrink-swell	0.87	Rock fragments	0.50
					Slope	0.63
					Too acid	0.88
MtE:						
Montevallo-----------	Poor		Poor		Poor	
	Thickest layer	0.00	Depth to bedrock	0.00	Slope	0.00
	Bottom layer	0.00	Slope	0.08	Depth to bedrock	0.00
					Rock fragments	0.00
					Too acid	0.88
Townley--------------	Poor		Poor		Poor	
	Thickest layer	0.00	Depth to bedrock	0.00	Slope	0.00
	Bottom layer	0.00	Low strength	0.00	Too clayey	0.00
			Slope	0.08	Depth to bedrock	0.29
			Shrink-swell	0.87	Rock fragments	0.50
					Too acid	0.88
MuE:						
Montevallo-----------	Poor		Poor		Poor	
	Thickest layer	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
	Bottom layer	0.00	Slope	0.82	Rock fragments	0.00
					Slope	0.00
					Too acid	0.88
Urban land-----------	Not Rated		Not rated		Not Rated	
NaD:						
Nauvoo---------------	Poor		Fair		Fair	
	Thickest layer	0.00	Depth to bedrock	0.95	Too clayey	0.59
	Bottom layer	0.00			Slope	0.63
					Too acid	0.76
NaE:						
Nauvoo---------------	Poor		Poor		Poor	
	Thickest layer	0.00	Slope	0.00	Slope	0.00
	Bottom layer	0.00	Depth to bedrock	0.95	Too clayey	0.59
					Too acid	0.76

Source of Sand, Roadfill, and Topsoil—Continued

Map symbol and soil name	Potential source of sand: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
NeB:						
Nella	Poor		Good		Poor	
	Thickest layer	0.00			Rock fragments	0.00
	Bottom layer	0.00			Hard to reclaim (rock fragments)	0.32
					Too clayey	0.52
					Too acid	0.88
NeD:						
Nella	Poor		Good		Poor	
	Thickest layer	0.00			Rock fragments	0.00
	Bottom layer	0.00			Hard to reclaim (rock fragments)	0.32
					Too clayey	0.52
					Slope	0.63
					Too acid	0.88
NeE:						
Nella	Poor		Fair		Poor	
	Thickest layer	0.00	Slope	0.08	Slope	0.00
	Bottom layer	0.00			Rock fragments	0.00
					Hard to reclaim (rock fragments)	0.32
					Too clayey	0.52
					Too acid	0.88
NeF:						
Nella	Poor		Poor		Poor	
	Thickest layer	0.00	Slope	0.00	Slope	0.00
	Bottom layer	0.00			Rock fragments	0.00
					Hard to reclaim (rock fragments)	0.32
					Too clayey	0.52
					Too acid	0.88
NtF:						
Nella	Poor		Poor		Poor	
	Thickest layer	0.00	Slope	0.00	Slope	0.00
	Bottom layer	0.00			Rock fragments	0.00
					Hard to reclaim (rock fragments)	0.32
					Too clayey	0.52
					Too acid	0.88
Hector	Poor		Poor		Poor	
	Thickest layer	0.00	Depth to bedrock	0.00	Slope	0.00
	Bottom layer	0.00	Slope	0.00	Depth to bedrock	0.00
					Rock fragments	0.00
					Too acid	0.98
Townley	Poor		Poor		Poor	
	Thickest layer	0.00	Slope	0.00	Slope	0.00
	Bottom layer	0.00	Depth to bedrock	0.00	Too clayey	0.00
			Low strength	0.00	Depth to bedrock	0.29
			Shrink-swell	0.87	Rock fragments	0.50
					Too acid	0.88

Source of Sand, Roadfill, and Topsoil—Continued

Map symbol and soil name	Potential source of sand: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
PaE:						
Panama---------------	Poor		Fair		Poor	
	Thickest layer	0.00	Slope	0.08	Slope	0.00
	Bottom layer	0.00			Rock fragments	0.00
					Hard to reclaim (rock fragments)	0.68
PaF:						
Panama---------------	Poor		Poor		Poor	
	Thickest layer	0.00	Slope	0.00	Slope	0.00
	Bottom layer	0.00			Rock fragments	0.00
					Hard to reclaim (rock fragments)	0.68
PcD:						
Pigeonroost----------	Poor		Poor		Fair	
	Thickest layer	0.00	Depth to bedrock	0.00	Too clayey	0.57
	Bottom layer	0.00			Rock fragments	0.70
					Slope	0.84
					Depth to bedrock	0.84
					Too acid	0.88
Cheoah---------------	Poor		Good		Fair	
	Thickest layer	0.00			Slope	0.84
	Bottom layer	0.00			Rock fragments	0.88
					Hard to reclaim (rock fragments)	0.95
					Too acid	0.98
Qu:						
Pits, quarries-------	Not Rated		Not rated		Not Rated	
Rk:						
Rock outcrop---------	Not Rated		Not rated		Not Rated	
SaA:						
Sequatchie-----------	Poor		Poor		Fair	
	Thickest layer	0.00	Low strength	0.00	Too clayey	0.26
	Bottom layer	0.00			Too acid	0.88
SaB:						
Sequatchie-----------	Poor		Poor		Fair	
	Thickest layer	0.00	Low strength	0.00	Too clayey	0.26
	Bottom layer	0.00			Too acid	0.88
ScB:						
Shack----------------	Poor		Poor		Poor	
	Thickest layer	0.00	Low strength	0.00	Rock fragments	0.00
	Bottom layer	0.00	Wetness depth	0.38	Too clayey	0.13
					Wetness depth	0.38
					Too acid	0.88
					Hard to reclaim (rock fragments)	0.92
Guthrie--------------	Poor		Poor		Poor	
	Thickest layer	0.00	Wetness depth	0.00	Wetness depth	0.00
	Bottom layer	0.00	Depth to cemented pan	0.00	Depth to cemented pan	0.16
			Low strength	0.00	Too clayey	0.35

Source of Sand, Roadfill, and Topsoil—Continued

Map symbol and soil name	Potential source of sand: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
SdD:						
Shack	Poor		Poor		Poor	
	Thickest layer	0.00	Low strength	0.00	Rock fragments	0.00
	Bottom layer	0.00	Wetness depth	0.38	Too clayey	0.13
					Wetness depth	0.38
					Slope	0.63
					Too acid	0.88
Bodine	Poor		Fair		Poor	
	Thickest layer	0.00	Cobble content	0.96	Hard to reclaim (rock fragments)	0.00
	Bottom layer	0.00			Rock fragments	0.00
					Too clayey	0.39
					Slope	0.63
					Too acid	0.76
Minvale	Poor		Good		Poor	
	Thickest layer	0.00			Rock fragments	0.00
	Bottom layer	0.00			Too clayey	0.01
					Hard to reclaim (rock fragments)	0.08
					Slope	0.63
					Too acid	0.88
SdE:						
Shack	Poor		Poor		Poor	
	Thickest layer	0.00	Low strength	0.00	Slope	0.00
	Bottom layer	0.00	Slope	0.08	Rock fragments	0.00
			Wetness depth	0.38	Too clayey	0.13
					Wetness depth	0.38
					Too acid	0.88
Bodine	Poor		Fair		Poor	
	Thickest layer	0.00	Slope	0.08	Slope	0.00
	Bottom layer	0.00	Cobble content	0.96	Hard to reclaim (rock fragments)	0.00
					Rock fragments	0.00
					Too clayey	0.39
					Too acid	0.76
Minvale	Poor		Fair		Poor	
	Thickest layer	0.00	Slope	0.08	Slope	0.00
	Bottom layer	0.00			Rock fragments	0.00
					Too clayey	0.01
					Hard to reclaim (rock fragments)	0.08
					Too acid	0.88
SeA:						
Shellbluff	Poor		Poor		Fair	
	Thickest layer	0.00	Low strength	0.00	Too clayey	0.75
	Bottom layer	0.00			Too acid	0.88
Ketona	Poor		Poor		Poor	
	Thickest layer	0.00	Wetness depth	0.00	Too clayey	0.00
	Bottom layer	0.00	Low strength	0.00	Wetness depth	0.00
			Shrink-swell	0.12		

Source of Sand, Roadfill, and Topsoil—Continued

Map symbol and soil name	Potential source of sand: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
ShC:						
Shelocta---------------	Poor		Fair		Fair	
	Thickest layer	0.00	Low strength	0.76	Rock fragments	0.12
	Bottom layer	0.00			Too clayey	0.70
					Hard to reclaim (rock fragments)	0.88
					Too acid	0.88
					Slope	0.96
SpD:						
Sipsey-----------------	Poor		Poor		Fair	
	Thickest layer	0.00	Depth to bedrock	0.00	Too clayey	0.52
	Bottom layer	0.00			Slope	0.84
					Depth to bedrock	0.84
					Too acid	0.88
					Rock fragments	0.88
SpE:						
Sipsey-----------------	Poor		Poor		Poor	
	Thickest layer	0.00	Depth to bedrock	0.00	Slope	0.00
	Bottom layer	0.00	Slope	0.08	Too clayey	0.52
					Depth to bedrock	0.84
					Too acid	0.88
					Rock fragments	0.88
SuB:						
Subligna---------------	Poor		Good		Poor	
	Thickest layer	0.00			Rock fragments	0.00
	Bottom layer	0.00			Hard to reclaim (rock fragments)	0.00
					Too sandy	0.04
					Too acid	0.88
SxA:						
Suches-----------------	Poor		Good		Fair	
	Thickest layer	0.00			Too acid	0.88
	Bottom layer	0.00				
TnB:						
Townley----------------	Poor		Poor		Poor	
	Thickest layer	0.00	Depth to bedrock	0.00	Too clayey	0.00
	Bottom layer	0.00	Low strength	0.00	Depth to bedrock	0.29
			Shrink-swell	0.87	Rock fragments	0.50
					Too acid	0.88
TnD:						
Townley----------------	Poor		Poor		Poor	
	Thickest layer	0.00	Depth to bedrock	0.00	Too clayey	0.00
	Bottom layer	0.00	Low strength	0.00	Depth to bedrock	0.29
			Shrink-swell	0.87	Rock fragments	0.50
					Slope	0.63
					Too acid	0.88
TnE:						
Townley----------------	Poor		Poor		Poor	
	Thickest layer	0.00	Depth to bedrock	0.00	Slope	0.00
	Bottom layer	0.00	Low strength	0.00	Too clayey	0.00
			Slope	0.08	Depth to bedrock	0.29
			Shrink-swell	0.87	Rock fragments	0.50
					Too acid	0.88

Source of Sand, Roadfill, and Topsoil—Continued

Map symbol and soil name	Potential source of sand: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
TnF:						
Townley	Poor		Poor		Poor	
	Thickest layer	0.00	Slope	0.00	Slope	0.00
	Bottom layer	0.00	Depth to bedrock	0.00	Too clayey	0.00
			Low strength	0.00	Depth to bedrock	0.29
			Shrink-swell	0.87	Rock fragments	0.50
					Too acid	0.88
TrC:						
Townley	Poor		Poor		Poor	
	Thickest layer	0.00	Depth to bedrock	0.00	Too clayey	0.00
	Bottom layer	0.00	Low strength	0.00	Depth to bedrock	0.29
			Shrink-swell	0.87	Rock fragments	0.50
					Too acid	0.88
					Slope	0.96
Urban land	Not Rated		Not rated		Not Rated	
TsE:						
Tsali	Poor		Poor		Poor	
	Thickest layer	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
	Bottom layer	0.00	Low strength	0.76	Slope	0.00
					Too clayey	0.52
					Too acid	0.88
					Rock fragments	0.99
TsF:						
Tsali	Poor		Poor		Poor	
	Thickest layer	0.00	Depth to bedrock	0.00	Slope	0.00
	Bottom layer	0.00	Slope	0.00	Depth to bedrock	0.00
			Low strength	0.76	Too clayey	0.52
					Too acid	0.88
					Rock fragments	0.99
TsG:						
Tsali	Poor		Poor		Poor	
	Thickest layer	0.00	Depth to bedrock	0.00	Slope	0.00
	Bottom layer	0.00	Slope	0.00	Depth to bedrock	0.00
			Low strength	0.76	Too clayey	0.52
					Too acid	0.88
					Rock fragments	0.99
Uc:						
Ultic Udarents, channery	Not Rated		Not rated		Not Rated	
Ug:						
Ultic Udarents, gravelly	Not Rated		Not rated		Not Rated	
UrC:						
Urban land	Not Rated		Not rated		Not Rated	

Source of Sand, Roadfill, and Topsoil—Continued

Map symbol and soil name	Potential source of sand: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
WaA:						
Wax	Poor		Fair		Poor	
	Thickest layer	0.00	Wetness depth	0.86	Hard to reclaim (rock fragments)	0.00
	Bottom layer	0.00			Wetness depth	0.86
					Too acid	0.88
Guthrie	Poor		Poor		Poor	
	Thickest layer	0.00	Wetness depth	0.00	Wetness depth	0.00
	Bottom layer	0.00	Depth to cemented pan	0.00	Depth to cemented pan	0.16
			Low strength	0.00	Too clayey	0.35
WaB:						
Wax	Poor		Fair		Poor	
	Thickest layer	0.00	Wetness depth	0.86	Hard to reclaim (rock fragments)	0.00
	Bottom layer	0.00			Wetness depth	0.86
					Too acid	0.88
WnB:						
Waynesboro	Poor		Fair		Poor	
	Thickest layer	0.00	Low strength	0.50	Too clayey	0.00
	Bottom layer	0.00			Too acid	0.88
WnD:						
Waynesboro	Poor		Fair		Poor	
	Thickest layer	0.00	Low strength	0.50	Too clayey	0.00
	Bottom layer	0.00			Slope	0.63
					Too acid	0.88
WsC:						
Waynesboro	Poor		Fair		Poor	
	Thickest layer	0.00	Low strength	0.50	Too clayey	0.00
	Bottom layer	0.00			Too acid	0.88
					Slope	0.96
Urban land	Not Rated		Not rated		Not Rated	
WtA:						
Whitwell	Poor		Poor		Fair	
	Thickest layer	0.00	Low strength	0.00	Wetness depth	0.18
	Bottom layer	0.00	Wetness depth	0.18	Too clayey	0.43
Guthrie	Poor		Poor		Poor	
	Thickest layer	0.00	Wetness depth	0.00	Wetness depth	0.00
	Bottom layer	0.00	Depth to cemented pan	0.00	Depth to cemented pan	0.16
			Low strength	0.00	Too clayey	0.35
Ketona	Poor		Poor		Poor	
	Thickest layer	0.00	Wetness depth	0.00	Too clayey	0.00
	Bottom layer	0.00	Low strength	0.00	Wetness depth	0.00
			Shrink-swell	0.12		
WtB:						
Whitwell	Poor		Poor		Fair	
	Thickest layer	0.00	Low strength	0.00	Wetness depth	0.18
	Bottom layer	0.00	Wetness depth	0.18	Too clayey	0.43

Source of Sand, Roadfill, and Topsoil—Continued

Map symbol and soil name	Potential source of sand		Potential source of roadfill		Potential source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
WuA:						
Whitwell-------------	Poor		Poor		Fair	
	Thickest layer	0.00	Low strength	0.00	Wetness depth	0.18
	Bottom layer	0.00	Wetness depth	0.18	Too clayey	0.43
Urban land-----------	Not Rated		Not rated		Not Rated	
Ketona---------------	Poor		Poor		Poor	
	Thickest layer	0.00	Wetness depth	0.00	Too clayey	0.00
	Bottom layer	0.00	Low strength	0.00	Wetness depth	0.00
			Shrink-swell	0.12		

Ponds and Embankments

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pond reservoir areas		Embankments, dikes and levees	
	Rating class and limiting features	Value	Rating class and limiting features	Value
AbB:				
Albertville	Somewhat limited		Somewhat limited	
	Seepage	0.04	Depth to saturated zone	0.53
	Depth to bedrock	0.01	Thin layer	0.19
AbD:				
Albertville	Somewhat limited		Somewhat limited	
	Seepage	0.04	Depth to saturated zone	0.53
	Slope	0.01	Thin layer	0.19
	Depth to bedrock	0.01		
AnB:				
Allen	Somewhat limited		Very limited	
	Seepage	0.72	Piping	0.99
AnD:				
Allen	Somewhat limited		Very limited	
	Seepage	0.72	Piping	0.99
	Slope	0.01		
AnE:				
Allen	Somewhat limited		Very limited	
	Slope	0.96	Piping	0.99
	Seepage	0.72		
ArC:				
Allen	Somewhat limited		Very limited	
	Seepage	0.72	Piping	0.99
Urban land	Not Rated		Not rated	
ArE:				
Allen	Somewhat limited		Very limited	
	Slope	0.96	Piping	0.99
	Seepage	0.72		
Urban land	Not Rated		Not rated	
AuA:				
Arkabutla	Somewhat limited		Very limited	
	Seepage	0.72	Depth to saturated zone	1.00
			Piping	1.00
Ketona	Not limited		Very limited	
			Ponding	1.00
			Depth to saturated zone	1.00
			Hard to pack	0.25
BoD:				
Bodine	Very limited		Somewhat limited	
	Seepage	1.00	Seepage	0.12
	Slope	0.01		

Ponds and Embankments—Continued

Map symbol and soil name	Pond reservoir areas		Embankments, dikes and levees	
	Rating class and limiting features	Value	Rating class and limiting features	Value
BoE:				
Bodine	Very limited		Somewhat limited	
	Seepage	1.00	Seepage	0.12
	Slope	0.96		
BoF:				
Bodine	Very limited		Somewhat limited	
	Seepage	1.00	Seepage	0.12
	Slope	1.00		
CaA:				
Capshaw	Somewhat limited		Somewhat limited	
	Depth to bedrock	0.02	Hard to pack	0.92
			Depth to saturated zone	0.53
			Thin layer	0.02
Ketona	Not limited		Very limited	
			Ponding	1.00
			Depth to saturated zone	1.00
			Hard to pack	0.25
Guthrie	Somewhat limited		Very limited	
	Depth to cemented pan	0.96	Ponding	1.00
			Depth to saturated zone	1.00
	Seepage	0.04		
			Piping	0.99
			Thin layer	0.96
CaB:				
Capshaw	Somewhat limited		Somewhat limited	
	Depth to bedrock	0.02	Hard to pack	0.92
			Depth to saturated zone	0.53
			Thin layer	0.02
Ketona	Not limited		Very limited	
			Ponding	1.00
			Depth to saturated zone	1.00
			Hard to pack	0.25
Guthrie	Somewhat limited		Very limited	
	Depth to cemented pan	0.96	Ponding	1.00
			Depth to saturated zone	1.00
	Seepage	0.04		
			Piping	0.99
			Thin layer	0.96
CkE:				
Cataska	Very limited		Very limited	
	Seepage	1.00	Thin layer	1.00
	Depth to bedrock	0.93		
	Slope	0.23		
CkF:				
Cataska	Very limited		Very limited	
	Slope	1.00	Thin layer	1.00
	Seepage	1.00		
	Depth to bedrock	0.93		

Ponds and Embankments—Continued

Map symbol and soil name	Pond reservoir areas		Embankments, dikes and levees	
	Rating class and limiting features	Value	Rating class and limiting features	Value
CkG:				
Cataska-------------	Very limited		Very limited	
	Slope	1.00	Thin layer	1.00
	Seepage	1.00		
	Depth to bedrock	0.93		
CnA:				
Chenneby------------	Somewhat limited		Very limited	
	Seepage	0.72	Depth to saturated zone	1.00
			Piping	1.00
Ketona--------------	Not limited		Very limited	
			Ponding	1.00
			Depth to saturated zone	1.00
			Hard to pack	0.25
CoA:				
Chenneby------------	Somewhat limited		Very limited	
	Seepage	0.72	Depth to saturated zone	1.00
			Piping	1.00
Urban land----------	Not Rated		Not rated	
Ketona--------------	Not limited		Very limited	
			Ponding	1.00
			Depth to saturated zone	1.00
			Hard to pack	0.25
CrE:				
Cheoah--------------	Very limited		Very limited	
	Seepage	1.00	Piping	1.00
	Slope	0.99		
Edneytown-----------	Very limited		Somewhat limited	
	Seepage	1.00	Seepage	0.10
	Slope	0.99		
CsC:				
Conasauga-----------	Somewhat limited		Somewhat limited	
	Depth to bedrock	0.02	Depth to saturated zone	0.93
			Thin layer	0.56
			Hard to pack	0.11
CuC:				
Conasauga-----------	Somewhat limited		Somewhat limited	
	Depth to bedrock	0.02	Depth to saturated zone	0.93
			Thin layer	0.56
			Hard to pack	0.11
Urban land----------	Not Rated		Not rated	

Ponds and Embankments—Continued

Map symbol and soil name	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes and levees: Rating class and limiting features	Value
CvB:				
Craigsville---------	Very limited		Somewhat limited	
	Seepage	1.00	Seepage	0.06
			Large stones content	0.02
CxB:				
Cunningham----------	Somewhat limited		Somewhat limited	
	Seepage	0.04	Hard to pack	0.08
	Depth to bedrock	0.01	Thin layer	0.04
CxD:				
Cunningham----------	Somewhat limited		Somewhat limited	
	Seepage	0.04	Hard to pack	0.08
	Slope	0.01	Thin layer	0.04
	Depth to bedrock	0.01		
CxE:				
Cunningham----------	Somewhat limited		Somewhat limited	
	Slope	0.96	Hard to pack	0.08
	Seepage	0.04	Thin layer	0.04
	Depth to bedrock	0.01		
CxF:				
Cunningham----------	Very limited		Somewhat limited	
	Slope	1.00	Hard to pack	0.08
	Seepage	0.04	Thin layer	0.04
	Depth to bedrock	0.01		
DeB:				
Dewey---------------	Somewhat limited		Not limited	
	Seepage	0.72		
DeD:				
Dewey---------------	Somewhat limited		Not limited	
	Seepage	0.72		
	Slope	0.01		
DoA:				
Docena--------------	Somewhat limited		Very limited	
	Seepage	0.47	Depth to saturated zone	1.00
			Piping	0.99
Ketona--------------	Not limited		Very limited	
			Ponding	1.00
			Depth to saturated zone	1.00
			Hard to pack	0.25
DsB:				
Docena--------------	Somewhat limited		Very limited	
	Seepage	0.47	Depth to saturated zone	1.00
			Piping	0.99
Conasauga-----------	Somewhat limited		Somewhat limited	
	Depth to bedrock	0.02	Depth to saturated zone	0.93
			Thin layer	0.56
			Hard to pack	0.11

Ponds and Embankments—Continued

Map symbol and soil name	Pond reservoir areas		Embankments, dikes and levees	
	Rating class and limiting features	Value	Rating class and limiting features	Value
Ketona--------------	Not limited		Very limited	
			Ponding	1.00
			Depth to saturated zone	1.00
			Hard to pack	0.25
Du:				
Dumps---------------	Not Rated		Not rated	
EdF:				
Edneytown-----------	Very limited		Somewhat limited	
	Seepage	1.00	Seepage	0.10
	Slope	1.00		
EdG:				
Edneytown-----------	Very limited		Somewhat limited	
	Seepage	1.00	Seepage	0.10
	Slope	1.00		
EnB:				
Enders--------------	Somewhat limited		Somewhat limited	
	Depth to bedrock	0.01	Thin layer	0.34
			Hard to pack	0.11
EnD:				
Enders--------------	Somewhat limited		Somewhat limited	
	Slope	0.01	Thin layer	0.34
	Depth to bedrock	0.01	Hard to pack	0.11
EuC:				
Enders--------------	Somewhat limited		Somewhat limited	
	Depth to bedrock	0.01	Thin layer	0.34
			Hard to pack	0.11
Urban land----------	Not Rated		Not rated	
FtB:				
Fullerton-----------	Somewhat limited		Not limited	
	Seepage	0.72		
FtD:				
Fullerton-----------	Somewhat limited		Not limited	
	Seepage	0.72		
	Slope	0.01		
FtE:				
Fullerton-----------	Somewhat limited		Not limited	
	Slope	0.96		
	Seepage	0.72		
FtF:				
Fullerton-----------	Very limited		Not limited	
	Slope	1.00		
	Seepage	0.72		
FuE:				
Fullerton-----------	Somewhat limited		Not limited	
	Slope	0.96		
	Seepage	0.72		
Urban land----------	Not Rated		Not rated	

Ponds and Embankments—Continued

Map symbol and soil name	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes and levees: Rating class and limiting features	Value
GrA:				
Guthrie	Somewhat limited		Very limited	
	Depth to cemented pan	0.96	Ponding	1.00
	Seepage	0.04	Depth to saturated zone	1.00
			Piping	0.99
			Thin layer	0.96
HcB:				
Hanceville	Somewhat limited		Not limited	
	Seepage	0.72		
HcD:				
Hanceville	Somewhat limited		Not limited	
	Seepage	0.72		
	Slope	0.01		
HcE:				
Hanceville	Somewhat limited		Not limited	
	Slope	0.96		
	Seepage	0.72		
HnC:				
Hanceville	Somewhat limited		Not limited	
	Seepage	0.72		
Urban land	Not Rated		Not rated	
HrF:				
Hector	Very limited		Very limited	
	Depth to bedrock	1.00	Thin layer	1.00
	Seepage	1.00	Seepage	0.04
	Slope	0.77		
Townley	Somewhat limited		Somewhat limited	
	Slope	0.77	Thin layer	0.93
	Depth to bedrock	0.19		
Rock outcrop	Very limited		Not rated	
	Depth to bedrock	1.00		
	Slope	0.77		
HsB:				
Holston	Somewhat limited		Somewhat limited	
	Seepage	0.72	Piping	0.93
HsD:				
Holston	Somewhat limited		Somewhat limited	
	Seepage	0.72	Piping	0.93
	Slope	0.01		
JfF:				
Jefferson	Very limited		Somewhat limited	
	Seepage	1.00	Seepage	0.25
	Slope	1.00		
JfG:				
Jefferson	Very limited		Somewhat limited	
	Seepage	1.00	Seepage	0.25
	Slope	1.00		

Ponds and Embankments—Continued

Map symbol and soil name	Pond reservoir areas		Embankments, dikes and levees	
	Rating class and limiting features	Value	Rating class and limiting features	Value
JsE:				
Junaluska-----------	Somewhat limited		Very limited	
	Seepage	0.72	Piping	1.00
	Slope	0.23	Thin layer	0.88
	Depth to bedrock	0.13		
JsF:				
Junaluska-----------	Very limited		Very limited	
	Slope	1.00	Piping	1.00
	Seepage	0.72	Thin layer	0.88
	Depth to bedrock	0.13		
JsG:				
Junaluska-----------	Very limited		Very limited	
	Slope	1.00	Piping	1.00
	Seepage	0.72	Thin layer	0.88
	Depth to bedrock	0.13		
JtE:				
Junaluska-----------	Somewhat limited		Very limited	
	Seepage	0.72	Piping	1.00
	Slope	0.23	Thin layer	0.88
	Depth to bedrock	0.13		
Tsali---------------	Somewhat limited		Very limited	
	Depth to bedrock	0.71	Thin layer	1.00
	Slope	0.23	Piping	1.00
JtF:				
Junaluska-----------	Very limited		Very limited	
	Slope	1.00	Piping	1.00
	Seepage	0.72	Thin layer	0.88
	Depth to bedrock	0.13		
Tsali---------------	Very limited		Very limited	
	Slope	1.00	Thin layer	1.00
	Depth to bedrock	0.71	Piping	1.00
KtA:				
Ketona--------------	Not limited		Very limited	
			Ponding	1.00
			Depth to saturated zone	1.00
			Hard to pack	0.25
LyE:				
Lily----------------	Very limited		Somewhat limited	
	Seepage	1.00	Thin layer	0.52
	Depth to bedrock	0.52	Seepage	0.10
	Slope	0.23		
MnC:				
Minvale-------------	Somewhat limited		Somewhat limited	
	Seepage	0.72	Piping	0.61
Urban land----------	Not Rated		Not rated	
MoF:				
Montevallo----------	Very limited		Very limited	
	Slope	1.00	Thin layer	1.00
	Depth to bedrock	0.83		

Ponds and Embankments—Continued

Map symbol and soil name	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes and levees: Rating class and limiting features	Value
MtD:				
Montevallo----------	Somewhat limited		Very limited	
	Depth to bedrock	0.83	Thin layer	1.00
	Slope	0.01		
Townley------------	Somewhat limited		Somewhat limited	
	Depth to bedrock	0.19	Thin layer	0.93
	Slope	0.01		
MtE:				
Montevallo----------	Somewhat limited		Very limited	
	Slope	0.96	Thin layer	1.00
	Depth to bedrock	0.83		
Townley------------	Somewhat limited		Somewhat limited	
	Slope	0.96	Thin layer	0.93
	Depth to bedrock	0.19		
MuE:				
Montevallo----------	Somewhat limited		Very limited	
	Depth to bedrock	0.83	Thin layer	1.00
	Slope	0.56		
Urban land----------	Not Rated		Not rated	
NaD:				
Nauvoo--------------	Somewhat limited		Somewhat limited	
	Seepage	0.72	Thin layer	0.01
	Slope	0.01		
	Depth to bedrock	0.01		
NaE:				
Nauvoo--------------	Very limited		Somewhat limited	
	Slope	0.99	Thin layer	0.01
	Seepage	0.72		
	Depth to bedrock	0.01		
NeB:				
Nella---------------	Somewhat limited		Not limited	
	Seepage	0.72		
NeD:				
Nella---------------	Somewhat limited		Not limited	
	Seepage	0.72		
	Slope	0.01		
NeE:				
Nella---------------	Somewhat limited		Not limited	
	Slope	0.96		
	Seepage	0.72		
NeF:				
Nella---------------	Very limited		Not limited	
	Slope	1.00		
	Seepage	0.72		
NtF:				
Nella---------------	Very limited		Not limited	
	Slope	1.00		
	Seepage	0.72		

Ponds and Embankments—Continued

Map symbol and soil name	Pond reservoir areas		Embankments, dikes and levees	
	Rating class and limiting features	Value	Rating class and limiting features	Value
Hector--------------	Very limited		Very limited	
	Slope	1.00	Thin layer	1.00
	Depth to bedrock	1.00	Seepage	0.04
	Seepage	1.00		
Townley-------------	Very limited		Somewhat limited	
	Slope	1.00	Thin layer	0.93
	Depth to bedrock	0.19		
PaE:				
Panama--------------	Somewhat limited		Not limited	
	Slope	0.96		
	Seepage	0.72		
PaF:				
Panama--------------	Very limited		Not limited	
	Slope	1.00		
	Seepage	0.72		
PcD:				
Pigeonroost---------	Somewhat limited		Somewhat limited	
	Seepage	0.72	Thin layer	0.74
	Depth to bedrock	0.05		
	Slope	0.01		
Cheoah--------------	Very limited		Very limited	
	Seepage	1.00	Piping	1.00
	Slope	0.01		
Qu:				
Pits, quarries------	Not Rated		Not rated	
Rk:				
Rock outcrop--------	Not Rated		Not rated	
SaA:				
Sequatchie----------	Very limited		Somewhat limited	
	Seepage	1.00	Piping	0.94
SaB:				
Sequatchie----------	Very limited		Somewhat limited	
	Seepage	1.00	Piping	0.94
ScB:				
Shack---------------	Somewhat limited		Very limited	
	Depth to cemented pan	0.86	Depth to saturated zone	1.00
	Seepage	0.72	Piping	0.98
Guthrie-------------	Somewhat limited		Very limited	
	Depth to cemented pan	0.96	Ponding	1.00
			Depth to saturated zone	1.00
	Seepage	0.04		
			Piping	0.99
			Thin layer	0.96

Ponds and Embankments—Continued

Map symbol and soil name	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes and levees: Rating class and limiting features	Value
SdD:				
Shack	Somewhat limited		Very limited	
	Depth to cemented pan	0.86	Depth to saturated zone	1.00
	Seepage	0.72	Piping	0.98
	Slope	0.01		
Bodine	Very limited		Somewhat limited	
	Seepage	1.00	Seepage	0.12
	Slope	0.01		
Minvale	Somewhat limited		Somewhat limited	
	Seepage	0.72	Piping	0.61
	Slope	0.01		
SdE:				
Shack	Somewhat limited		Very limited	
	Slope	0.96	Depth to saturated zone	1.00
	Depth to cemented pan	0.86	Piping	0.98
	Seepage	0.72		
Bodine	Very limited		Somewhat limited	
	Seepage	1.00	Seepage	0.12
	Slope	0.96		
Minvale	Somewhat limited		Somewhat limited	
	Slope	0.96	Piping	0.61
	Seepage	0.72		
SeA:				
Shellbluff	Somewhat limited		Very limited	
	Seepage	0.72	Piping	1.00
			Seepage	0.01
Ketona	Not limited		Very limited	
			Ponding	1.00
			Depth to saturated zone	1.00
			Hard to pack	0.25
ShC:				
Shelocta	Very limited		Very limited	
	Seepage	1.00	Piping	1.00
SpD:				
Sipsey	Somewhat limited		Somewhat limited	
	Seepage	0.72	Thin layer	0.74
	Depth to bedrock	0.05		
	Slope	0.01		
SpE:				
Sipsey	Somewhat limited		Somewhat limited	
	Slope	0.96	Thin layer	0.74
	Seepage	0.72		
	Depth to bedrock	0.05		
SuB:				
Subligna	Very limited		Somewhat limited	
	Seepage	1.00	Seepage	0.25

Ponds and Embankments—Continued

Map symbol and soil name	Pond reservoir areas		Embankments, dikes and levees	
	Rating class and limiting features	Value	Rating class and limiting features	Value
SxA:				
Suches--------------	Somewhat limited		Very limited	
	Seepage	0.72	Piping	1.00
			Seepage	0.11
TnB:				
Townley-------------	Somewhat limited		Somewhat limited	
	Depth to bedrock	0.19	Thin layer	0.93
TnD:				
Townley-------------	Somewhat limited		Somewhat limited	
	Depth to bedrock	0.19	Thin layer	0.93
	Slope	0.01		
TnE:				
Townley-------------	Somewhat limited		Somewhat limited	
	Slope	0.96	Thin layer	0.93
	Depth to bedrock	0.19		
TnF:				
Townley-------------	Very limited		Somewhat limited	
	Slope	1.00	Thin layer	0.93
	Depth to bedrock	0.19		
TrC:				
Townley-------------	Somewhat limited		Somewhat limited	
	Depth to bedrock	0.19	Thin layer	0.93
Urban land----------	Not Rated		Not rated	
TsE:				
Tsali---------------	Somewhat limited		Very limited	
	Depth to bedrock	0.71	Thin layer	1.00
	Slope	0.23	Piping	1.00
TsF:				
Tsali---------------	Very limited		Very limited	
	Slope	1.00	Thin layer	1.00
	Depth to bedrock	0.71	Piping	1.00
TsG:				
Tsali---------------	Very limited		Very limited	
	Slope	1.00	Thin layer	1.00
	Depth to bedrock	0.71	Piping	1.00
Uc:				
Ultic Udarents, channery-----------	Not Rated		Not rated	
Ug:				
Ultic Udarents, gravelly-----------	Not Rated		Not rated	
UrC:				
Urban land----------	Not Rated		Not rated	

Ponds and Embankments—Continued

Map symbol and soil name	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes and levees: Rating class and limiting features	Value
WaA:				
Wax	Somewhat limited		Somewhat limited	
	Depth to cemented pan	0.88	Depth to saturated zone	0.89
	Seepage	0.72	Seepage	0.12
Guthrie	Somewhat limited		Very limited	
	Depth to cemented pan	0.96	Ponding	1.00
	Seepage	0.04	Depth to saturated zone	1.00
			Piping	0.99
			Thin layer	0.96
WaB:				
Wax	Somewhat limited		Somewhat limited	
	Depth to cemented pan	0.88	Depth to saturated zone	0.89
	Seepage	0.72	Seepage	0.12
WnB:				
Waynesboro	Somewhat limited		Somewhat limited	
	Seepage	0.72	Piping	0.87
WnD:				
Waynesboro	Somewhat limited		Somewhat limited	
	Seepage	0.72	Piping	0.87
	Slope	0.01		
WsC:				
Waynesboro	Somewhat limited		Somewhat limited	
	Seepage	0.72	Piping	0.87
Urban land	Not Rated		Not rated	
WtA:				
Whitwell	Somewhat limited		Very limited	
	Seepage	0.72	Depth to saturated zone	1.00
			Piping	0.92
Guthrie	Somewhat limited		Very limited	
	Depth to cemented pan	0.96	Ponding	1.00
	Seepage	0.04	Depth to saturated zone	1.00
			Piping	0.99
			Thin layer	0.96
Ketona	Not limited		Very limited	
			Ponding	1.00
			Depth to saturated zone	1.00
			Hard to pack	0.25
WtB:				
Whitwell	Somewhat limited		Very limited	
	Seepage	0.72	Depth to saturated zone	1.00
			Piping	0.92

Ponds and Embankments—Continued

Map symbol and soil name	Pond reservoir areas		Embankments, dikes and levees	
	Rating class and limiting features	Value	Rating class and limiting features	Value
WuA:				
Whitwell------------	Somewhat limited		Very limited	
	Seepage	0.72	Depth to saturated zone	1.00
			Piping	0.92
Urban land----------	Not Rated		Not rated	
Ketona--------------	Not limited		Very limited	
			Ponding	1.00
			Depth to saturated zone	1.00
			Hard to pack	0.25

Engineering Properties

(Absence of an entry indicates that the data were not estimated.)

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
AbB:												
Albertville-----	0-6	Silt loam	ML, CL-ML	A-4	0	0	80-100	75-100	70-100	55-90	28-43	6-11
	6-9	Silt loam, silty clay loam	ML, CL, CL-ML	A-4, A-6	0	0	80-100	75-100	70-100	55-95	27-50	6-18
	9-47	Silty clay loam, silty clay, clay loam	ML, CH, CL, MH	A-6, A-7-5, A-7-6	0	0	60-100	45-100	40-100	35-95	35-66	11-28
	47-60	Bedrock			---	---	---	---	---	---	---	---
AbD:												
Albertville-----	0-6	Silt loam	CL-ML, ML	A-4	0	0	80-100	75-100	70-100	55-90	28-43	6-11
	6-9	Silt loam, silty clay loam	CL, ML, CL-ML	A-4, A-6	0	0	80-100	75-100	70-100	55-95	27-50	6-18
	9-47	Silty clay loam, silty clay, clay loam	CH, CL, MH, ML	A-6, A-7-5, A-7-6	0	0	60-100	45-100	40-100	35-95	35-66	11-28
	47-60	Bedrock			---	---	---	---	---	---	---	---
AnB:												
Allen-----------	0-5	Loam	ML	A-4	0	0-5	100	80-100	70-95	50-80	19-41	1-11
	5-14	Clay loam, loam	ML	A-6, A-4	0	0-5	85-100	80-100	70-100	50-80	19-45	1-13
	14-51	Clay loam, loam	CL, CL-ML	A-4, A-6	0	0-5	90-100	85-100	70-100	50-80	21-45	3-16
	51-60	Clay loam, clay	MH, CL	A-6, A-7-6	0	0-5	85-100	85-100	75-100	60-80	35-53	11-21
AnD:												
Allen-----------	0-5	Loam	ML	A-4	0	0-5	100	80-100	70-95	50-80	19-41	1-11
	5-14	Clay loam, loam	ML	A-6, A-4	0	0-5	85-100	80-100	70-100	50-80	19-45	1-13
	14-51	Clay loam, loam	CL, CL-ML	A-4, A-6	0	0-5	90-100	85-100	70-100	50-80	21-45	3-16
	51-60	Clay loam, clay	MH, CL	A-6, A-7-6	0	0-5	85-100	85-100	75-100	60-80	35-53	11-21
AnE:												
Allen-----------	0-5	Loam	ML	A-4	0	0-5	100	80-100	70-95	50-80	19-41	1-11
	5-14	Clay loam, loam	ML	A-6, A-4	0	0-5	85-100	80-100	70-100	50-80	19-45	1-13
	14-51	Clay loam, loam	CL, CL-ML	A-4, A-6	0	0-5	90-100	85-100	70-100	50-80	21-45	3-16
	51-60	Clay loam, clay	CL, MH	A-6, A-7-6	0	0-5	85-100	85-100	75-100	60-80	35-53	11-21
ArC:												
Allen-----------	0-5	Loam	ML	A-4	0	0-5	100	80-100	70-95	50-80	19-41	1-11
	5-14	Clay loam, loam	ML	A-6, A-4	0	0-5	85-100	80-100	70-100	50-80	19-45	1-13
	14-51	Clay loam, loam	CL-ML, CL	A-4, A-6	0	0-5	90-100	85-100	70-100	50-80	21-45	3-16
	51-60	Clay loam, clay	MH, CL	A-6, A-7-6	0	0-5	85-100	85-100	75-100	60-80	35-53	11-21
Urban land------	---	---	---	---	---	---	---	---	---	---	---	---

Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
ArE:												
Allen-----------	0-5	Loam	ML	A-4	0	0-5	100	80-100	70-95	50-80	19-41	1-11
	5-14	Clay loam, loam	ML	A-6, A-4	0	0-5	85-100	80-100	70-100	50-80	19-45	1-13
	14-51	Clay loam, loam	CL, CL-ML	A-4, A-6	0	0-5	90-100	85-100	70-100	50-80	21-45	3-16
	51-60	Clay loam, clay	CL, MH	A-6, A-7-6	0	0-5	85-100	85-100	75-100	60-80	35-53	11-21
Urban land------	---	---	---	---	---	---	---	---	---	---	---	---
AuA:												
Arkabutla-------	0-6	Silt loam	CL-ML	A-4	0	0	95-100	95-100	85-100	65-90	18-41	1-11
	6-13	Silt loam, loam	CL-ML, CL	A-4	0	0	95-100	95-100	80-100	55-90	21-37	3-11
	13-18	Silty clay loam, silt loam	CL	A-4, A-6	0	0	95-100	95-100	85-100	65-95	29-44	8-16
	18-63	Silty clay loam, silt loam	CL	A-4, A-6	0	0	95-100	95-100	85-100	65-95	29-44	8-16
Ketona----------	0-7	Silt loam	CL	A-6	0	0	95-100	95-100	85-100	65-90	30-42	11-16
	7-22	Silty clay, silty clay loam	CH, CL	A-7-6	0	0	85-100	80-100	75-100	70-95	46-70	22-39
	22-64	Clay, silty clay	CH, CL	A-7-6	0	0	90-100	85-100	75-100	65-95	49-69	25-39
BoD:												
Bodine----------	0-4	Very gravelly silt loam	SC-SM, SC, GC, GC-GM	A-1, A-6, A-2-4	0-5	5-15	45-65	25-50	20-50	15-45	22-41	6-19
	4-16	Extremely gravelly silt loam, very gravelly silt loam	SC-SM, SC, GC, GC-GM	A-6, A-1, A-2-4	0-5	5-15	45-65	25-50	20-50	15-45	21-40	6-19
	16-60	Extremely gravelly clay loam, extremely gravelly loam, extremely gravelly silty clay loam	GC	A-2-6	0-10	15-20	40-45	20-30	15-30	12-30	29-45	13-25
BoE:												
Bodine----------	0-4	Very gravelly silt loam	GC, SC-SM, SC, GC-GM	A-1, A-6, A-2-4	0-5	5-15	45-65	25-50	20-50	15-45	22-41	6-19
	4-16	Extremely gravelly silt loam, very gravelly silt loam	SC, GC-GM, GC, SC-SM	A-6, A-1, A-2-4	0-5	5-15	45-65	25-50	20-50	15-45	21-40	6-19
	16-60	Extremely gravelly clay loam, extremely gravelly loam, extremely gravelly silty clay loam	GC	A-2-6	0-10	15-20	40-45	20-30	15-30	12-30	29-45	13-25

Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
BoF:												
Bodine----------	0-4	Very gravelly silt loam	SC-SM, SC, GC, GC-GM	A-1, A-6, A-2-4	0-5	5-15	45-65	25-50	20-50	15-45	22-41	6-19
	4-16	Extremely gravelly silt loam, very gravelly silt loam	SC-SM, SC, GC-GM, GC	A-6, A-1, A-2-4	0-5	5-15	45-65	25-50	20-50	15-45	21-40	6-19
	16-60	Extremely gravelly clay loam, extremely gravelly loam, extremely gravelly silty clay loam	GC	A-2-6	0-10	15-20	40-45	20-30	15-30	12-30	29-45	13-25
CaA:												
Capshaw---------	0-7	Silt loam	CL	A-6, A-4	0	0	85-100	85-100	75-100	60-90	27-43	9-18
	7-14	Silty clay loam, silty clay, clay	CH, CL	A-6, A-7-6	0	0	85-100	85-100	75-100	65-95	36-54	17-32
	14-55	Clay, silty clay loam, silty clay	CL, CH	A-7-6	0	0-2	85-100	85-100	75-100	65-95	43-76	22-51
	55-64	Bedrock			---	---	---	---	---	---	---	---
Ketona----------	0-7	Silt loam	CL	A-6	0	0	95-100	95-100	85-100	65-90	30-42	11-16
	7-22	Silty clay, silty clay loam	CH, CL	A-7-6	0	0	85-100	80-100	75-100	70-95	46-70	22-39
	22-64	Clay, silty clay	CH, CL	A-7-6	0	0	90-100	85-100	75-100	65-95	49-69	25-39
Guthrie---------	0-3	Silt loam	ML, CL-ML	A-4	0	0	85-100	75-100	70-100	55-90	22-39	3-11
	3-7	Silt loam	CL, ML, CL-ML	A-4	0	0	85-100	75-100	70-100	55-90	21-37	3-11
	7-25	Silty clay loam	ML	A-4, A-6	0	0	85-100	80-100	75-100	65-95	35-44	7-14
	25-60	Gravelly silty clay loam, very gravelly silty clay loam, very gravelly silt loam, gravelly silt loam	GC-GM, CL, CL-ML, SC, GC	A-2-4, A-6	0	0-3	45-100	30-100	30-100	20-95	27-44	7-16
CaB:												
Capshaw---------	0-7	Silt loam	CL	A-6, A-4	0	0	85-100	85-100	75-100	60-90	27-43	9-18
	7-14	Silty clay loam, silty clay, clay	CH, CL	A-6, A-7-6	0	0	85-100	85-100	75-100	65-95	36-54	17-32
	14-55	Clay, silty clay loam, silty clay	CH, CL	A-7-6	0	0-2	85-100	85-100	75-100	65-95	43-76	22-51
	55-64	Bedrock			---	---	---	---	---	---	---	---

Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct	Pct					Pct	
Ketona----------	0-7	Silt loam	CL	A-6	0	0	95-100	95-100	85-100	65-90	30-42	11-16
	7-22	Silty clay, silty clay loam	CH, CL	A-7-6	0	0	85-100	80-100	75-100	70-95	46-70	22-39
	22-64	Clay, silty clay	CH, CL	A-7-6	0	0	90-100	85-100	75-100	65-95	49-69	25-39
Guthrie---------	0-3	Silt loam	CL-ML, ML	A-4	0	0	85-100	75-100	70-100	55-90	22-39	3-11
	3-7	Silt loam	CL, CL-ML, ML	A-4	0	0	85-100	75-100	70-100	55-90	21-37	3-11
	7-25	Silty clay loam	ML	A-4, A-6	0	0	85-100	80-100	75-100	65-95	35-44	7-14
	25-60	Very gravelly silt loam, gravelly silt loam, gravelly silty clay loam, very gravelly silty clay loam	GC, GC-GM, SC, CL, CL-ML	A-2-4, A-6	0	0-3	45-100	30-100	30-100	20-95	27-44	7-16
CkE:												
Cataska---------	0-2	Channery silt loam	CL-ML, SC-SM	A-4	1-3	10-20	60-85	45-80	45-80	35-75	24-39	4-9
	2-16	Very channery silt loam, very channery loam	SC-SM, SM	A-4	2-5	15-25	65-70	55-60	50-60	35-55	23-36	4-9
	16-27	Weathered bedrock			---	---	---	---	---	---	---	---
	27-60	Bedrock			---	---	---	---	---	---	---	---
CkF:												
Cataska---------	0-2	Channery silt loam	CL-ML, SC-SM	A-4	1-3	10-20	60-85	45-80	45-80	35-75	24-39	4-9
	2-16	Very channery silt loam, very channery loam	SC-SM, SM	A-4	2-5	15-25	65-70	55-60	50-60	35-55	23-36	4-9
	16-27	Weathered bedrock			---	---	---	---	---	---	---	---
	27-60	Bedrock			---	---	---	---	---	---	---	---
CkG:												
Cataska---------	0-2	Channery silt loam	SC-SM, CL-ML	A-4	1-3	10-20	60-85	45-80	45-80	35-75	24-39	4-9
	2-16	Very channery silt loam, very channery loam	SC-SM, SM	A-4	2-5	15-25	65-70	55-60	50-60	35-55	23-36	4-9
	16-27	Weathered bedrock			---	---	---	---	---	---	---	---
	27-60	Bedrock			---	---	---	---	---	---	---	---
CnA:												
Chenneby--------	0-11	Silt loam	CL-ML	A-4	0	0	100	95-100	95-100	65-90	23-43	4-11
	11-30	Loam, silt loam, silty clay loam, clay loam	CL, ML	A-6, A-4	0	0	100	95-100	95-100	55-95	22-44	4-16
	30-82	Silty clay loam, silt loam, loam, clay loam	CL, CL-ML	A-6, A-4	0	0	100	95-100	95-100	55-95	20-40	3-13

Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	Percentage passing sieve number--: 10	Percentage passing sieve number--: 40	Percentage passing sieve number--: 200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
Ketona----------	0-7	Silt loam	CL	A-6	0	0	95-100	95-100	85-100	65-90	30-42	11-16
	7-22	Silty clay, silty clay loam	CH, CL	A-7-6	0	0	85-100	80-100	75-100	70-95	46-70	22-39
	22-64	Clay, silty clay	CH, CL	A-7-6	0	0	90-100	85-100	75-100	65-95	49-69	25-39
CoA:												
Chenneby--------	0-11	Silt loam	ML, CL-ML	A-4	0	0	100	95-100	95-100	65-90	23-43	4-11
	11-30	Loam, silt loam, silty clay loam, clay loam	ML, CL	A-6, A-4	0	0	100	95-100	95-100	55-95	22-44	4-16
	30-82	Silty clay loam, silt loam, loam, clay loam	CL, CL-ML	A-6, A-4	0	0	100	95-100	95-100	55-95	20-40	3-13
Urban land------	---	---	---	---	---	---	---	---	---	---	---	---
Ketona----------	0-7	Silt loam	CL	A-6	0	0	95-100	95-100	85-100	65-90	30-42	11-16
	7-22	Silty clay, silty clay loam	CH, CL	A-7-6	0	0	85-100	80-100	75-100	70-95	46-70	22-39
	22-64	Clay, silty clay	CL, CH	A-7-6	0	0	90-100	85-100	75-100	65-95	49-69	25-39
CrE:												
Cheoah----------	0-12	Loam	SC-SM, ML	A-4	0	2-10	80-95	70-90	60-85	50-65	29-50	1-7
	12-32	Loam, sandy loam	ML, SC-SM	A-4	0	2-10	80-95	70-90	45-85	20-70	17-35	1-7
	32-54	Loam, sandy loam	CL-ML, SC-SM	A-4	0	5-15	85-95	80-95	70-90	50-65	16-30	1-7
	54-59	Fine sandy loam, sandy loam, loam	CL-ML, SC-SM	A-4	0	5-15	85-95	80-95	50-90	50-65	16-30	1-7
	59-65	Bedrock			---	---	---	---	---	---	---	---
Edneytown-------	0-7	Loam	SC-SM, ML	A-4	0-5	0-20	75-100	70-100	60-95	40-75	20-33	1-6
	7-10	Loam, loamy fine sand, sandy loam, fine sandy loam, gravelly loam	SC-SM, ML	A-1, A-4, A-2-4	0-5	0-20	75-100	70-100	40-95	20-75	19-31	1-6
	10-35	Sandy clay loam, clay loam, fine sandy loam	SC-SM, CL-ML, SC, CL	A-2-4, A-6	0-1	0-10	90-100	85-100	60-100	30-80	25-45	6-16
	35-45	Sandy loam, sandy clay loam	SC-SM, ML	A-2-4, A-4	0-1	0-10	90-100	85-100	50-90	25-55	21-32	3-8
	45-60	Loam, fine sandy loam, loamy sand, sandy loam, coarse sandy loam	CL-ML, SC-SM	A-1, A-4, A-2-4	0-1	0-10	90-100	85-100	40-95	15-75	15-27	NP-6

Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct	Pct					Pct	
CsC:												
Conasauga-------	0-3	Silt loam	CL-ML, CL	A-4, A-6	0	0	95-100	90-100	80-100	75-90	21-39	2-13
	3-6	Silt loam	CL-ML, CL	A-4, A-6	0	0	95-100	90-100	85-100	65-90	21-39	2-13
	6-34	Silty clay loam, silty clay	CL, CH	A-6, A-7-6	0	0	95-100	90-100	85-100	80-95	38-68	16-39
	34-38	Silty clay loam	CL	A-6	0	0	80-100	75-100	70-100	65-95	37-48	16-23
	38-60	Bedrock			---	---	---	---	---	---	---	---
CuC:												
Conasauga-------	0-3	Silt loam	CL, CL-ML	A-4, A-6	0	0	95-100	90-100	80-100	75-90	21-39	2-13
	3-6	Silt loam	CL, CL-ML	A-4, A-6	0	0	95-100	90-100	85-100	65-90	21-39	2-13
	6-34	Silty clay loam, silty clay	CL, CH	A-6, A-7-6	0	0	95-100	90-100	85-100	80-95	38-68	16-39
	34-38	Silty clay loam	CL	A-6	0	0	80-100	75-100	70-100	65-95	37-48	16-23
	38-60	Bedrock			---	---	---	---	---	---	---	---
Urban land------	---	---	---	---	---	---	---	---	---	---	---	---
CvB:												
Craigsville-----	0-4	Gravelly sandy loam	SC-SM, GM	A-1, A-2-4	0	5-35	45-85	30-80	15-55	10-30	18-37	1-6
	4-24	Gravelly sandy loam, extremely gravelly sandy loam	SC-SM, GC-GM	A-1, A-2-4	0	10-35	45-85	30-80	20-55	10-30	17-28	1-6
	24-60	Extremely gravelly coarse sandy loam, very gravelly sandy loam	GC-GM, SC-SM	A-1, A-2-4	0	10-35	45-85	30-80	20-55	10-30	16-23	1-6
CxB:												
Cunningham------	0-8	Silt loam	CL, CL-ML	A-4, A-6	0	0-5	90-100	85-100	80-100	60-90	22-43	4-16
	8-11	Silty clay loam	CL	A-6	0	0-5	90-100	85-100	85-100	75-95	37-49	16-22
	11-20	Clay loam, silty clay loam	CL	A-6	0	0-5	90-100	85-100	85-100	75-95	38-47	16-22
	20-36	Channery silty clay, silty clay loam, silty clay	CH, SC, CL	A-7-6	0	0	65-85	50-80	50-80	45-80	43-67	22-39
	36-53	Very channery silty clay loam, channery silty clay	CL, CH	A-7-6	0	10-15	55-75	45-65	40-65	40-65	43-67	22-39
	53-60	Bedrock			---	---	---	---	---	---	---	---

Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
CxD:												
Cunningham------	0-8	Silt loam	CL-ML, CL	A-4, A-6	0	0-5	90-100	85-100	80-100	60-90	22-43	4-16
	8-11	Silty clay loam	CL	A-6	0	0-5	90-100	85-100	85-100	75-95	37-49	16-22
	11-20	Clay loam, silty clay loam	CL	A-6	0	0-5	90-100	85-100	85-100	75-95	38-47	16-22
	20-36	Channery silty clay, silty clay loam, silty clay	CL, SC, CH	A-7-6	0	0	65-85	50-80	50-80	45-80	43-67	22-39
	36-53	Very channery silty clay loam, channery silty clay	CH, CL	A-7-6	0	10-15	55-75	45-65	40-65	40-65	43-67	22-39
	53-60	Bedrock			---	---	---	---	---	---	---	---
CxE:												
Cunningham------	0-8	Silt loam	CL-ML, CL	A-4, A-6	0	0-5	90-100	85-100	80-100	60-90	22-43	4-16
	8-11	Silty clay loam	CL	A-6	0	0-5	90-100	85-100	85-100	75-95	37-49	16-22
	11-20	Clay loam, silty clay loam	CL	A-6	0	0-5	90-100	85-100	85-100	75-95	38-47	16-22
	20-36	Channery silty clay, silty clay loam, silty clay	CH, CL, SC	A-7-6	0	0	65-85	50-80	50-80	45-80	43-67	22-39
	36-53	Very channery silty clay loam, channery silty clay	CL, CH	A-7-6	0	10-15	55-75	45-65	40-65	40-65	43-67	22-39
	53-60	Bedrock			---	---	---	---	---	---	---	---
CxF:												
Cunningham------	0-8	Silt loam	CL, CL-ML	A-4, A-6	0	0-5	90-100	85-100	80-100	60-90	22-43	4-16
	8-11	Silty clay loam	CL	A-6	0	0-5	90-100	85-100	85-100	75-95	37-49	16-22
	11-20	Clay loam, silty clay loam	CL	A-6	0	0-5	90-100	85-100	85-100	75-95	38-47	16-22
	20-36	Channery silty clay, silty clay loam, silty clay	CH, CL, SC	A-7-6	0	0	65-85	50-80	50-80	45-80	43-67	22-39
	36-53	Very channery silty clay loam, channery silty clay	CH, CL	A-7-6	0	10-15	55-75	45-65	40-65	40-65	43-67	22-39
	53-60	Bedrock			---	---	---	---	---	---	---	---
DeB:												
Dewey-----------	0-8	Silt loam	ML	A-4	0	0-3	85-100	80-100	70-100	55-90	22-41	2-9
	8-14	Silty clay, clay	MH, ML	A-6	0	0-3	85-100	80-100	70-100	60-95	40-59	14-18
	14-60	Clay, silty clay	MH, ML	A-7-6, A-6	0	0-3	85-100	80-100	70-100	60-95	40-67	14-22

Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	Percentage passing sieve number--: 10	Percentage passing sieve number--: 40	Percentage passing sieve number--: 200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
DeD:												
Dewey-----------	0-8	Silt loam	ML	A-4	0	0-3	85-100	80-100	70-100	55-90	22-41	2-9
	8-14	Silty clay, clay	MH, ML	A-6	0	0-3	85-100	80-100	70-100	60-95	40-59	14-18
	14-60	Clay, silty clay	ML, MH	A-7-6, A-6	0	0-3	85-100	80-100	70-100	60-95	40-67	14-22
DoA:												
Docena----------	0-3	Silt loam	ML	A-4	0	0	90-100	80-100	70-100	55-90	21-39	3-11
	3-7	Silt loam	ML, CL-ML, CL	A-4	0	0	90-100	80-100	70-100	55-90	21-37	3-11
	7-44	Silt loam, silty clay loam	ML, CL	A-4, A-6	0	0	98-100	80-100	70-100	55-95	29-47	7-16
	44-60	Silty clay loam, clay loam	ML	A-4, A-6	0	0	98-100	80-100	70-100	55-95	37-50	6-18
Ketona----------	0-7	Silt loam	CL	A-6	0	0	95-100	95-100	85-100	65-90	30-42	11-16
	7-22	Silty clay, silty clay loam	CL, CH	A-7-6	0	0	85-100	80-100	75-100	70-95	46-70	22-39
	22-64	Clay, silty clay	CL, CH	A-7-6	0	0	90-100	85-100	75-100	65-95	49-69	25-39
DsB:												
Docena----------	0-3	Silt loam	ML	A-4	0	0	90-100	80-100	70-100	55-90	21-39	3-11
	3-7	Silt loam	CL-ML, CL, ML	A-4	0	0	90-100	80-100	70-100	55-90	21-37	3-11
	7-44	Silt loam, silty clay loam	ML, CL	A-4, A-6	0	0	98-100	80-100	70-100	55-95	29-47	7-16
	44-60	Silty clay loam, clay loam	ML	A-4, A-6	0	0	98-100	80-100	70-100	55-95	37-50	6-18
Conasauga-------	0-3	Silt loam	CL, CL-ML	A-4, A-6	0	0	95-100	90-100	80-100	75-90	21-39	2-13
	3-6	Silt loam	CL-ML, CL	A-4, A-6	0	0	95-100	90-100	85-100	65-90	21-39	2-13
	6-34	Silty clay loam, silty clay	CL, CH	A-6, A-7-6	0	0	95-100	90-100	85-100	80-95	38-68	16-39
	34-38	Silty clay loam	CL	A-6	0	0	80-100	75-100	70-100	65-95	37-48	16-23
	38-60	Bedrock			---	---	---	---	---	---	---	---
Ketona----------	0-7	Silt loam	CL	A-6	0	0	95-100	95-100	85-100	65-90	30-42	11-16
	7-22	Silty clay, silty clay loam	CH, CL	A-7-6	0	0	85-100	80-100	75-100	70-95	46-70	22-39
	22-64	Clay, silty clay	CH, CL	A-7-6	0	0	90-100	85-100	75-100	65-95	49-69	25-39
Du:												
Dumps-----------	---	---	---	---	---	---	---	---	---	---	---	---

Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
EdF:												
Edneytown-------	0-7	Loam	SC-SM, ML	A-4	0-5	0-20	75-100	70-100	60-95	40-75	20-33	1-6
	7-10	Loam, loamy fine sand, sandy loam, fine sandy loam, gravelly loam	SC-SM, ML	A-1, A-4, A-2-4	0-5	0-20	75-100	70-100	40-95	20-75	19-31	1-6
	10-35	Sandy clay loam, clay loam, fine sandy loam	CL, CL-ML, SC, SC-SM	A-2-4, A-6	0-1	0-10	90-100	85-100	60-100	30-80	25-45	6-16
	35-45	Sandy loam, sandy clay loam	ML, SC-SM	A-2-4, A-4	0-1	0-10	90-100	85-100	50-90	25-55	21-32	3-8
	45-60	Loam, fine sandy loam, loamy sand, sandy loam, coarse sandy loam	CL-ML, SC-SM	A-1, A-4, A-2-4	0-1	0-10	90-100	85-100	40-95	15-75	15-27	NP-6
EdG:												
Edneytown-------	0-7	Loam	SC-SM, ML	A-4	0-5	0-20	75-100	70-100	60-95	40-75	20-33	1-6
	7-10	Loam, loamy fine sand, sandy loam, fine sandy loam, gravelly loam	SC-SM, ML	A-1, A-4, A-2-4	0-5	0-20	75-100	70-100	40-95	20-75	19-31	1-6
	10-35	Sandy clay loam, clay loam, fine sandy loam	SC-SM, SC, CL-ML, CL	A-2-4, A-6	0-1	0-10	90-100	85-100	60-100	30-80	25-45	6-16
	35-45	Sandy loam, sandy clay loam	ML, SC-SM	A-2-4, A-4	0-1	0-10	90-100	85-100	50-90	25-55	21-32	3-8
	45-60	Loam, fine sandy loam, loamy sand, sandy loam, coarse sandy loam	CL-ML, SC-SM	A-1, A-4, A-2-4	0-1	0-10	90-100	85-100	40-95	15-75	15-27	NP-6
EnB:												
Enders----------	0-6	Silt loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0-5	0-15	70-100	60-100	55-100	45-90	22-43	4-15
	6-10	Fine sandy loam, silt loam, silty clay loam, gravelly sandy clay loam	CL, SC	A-6, A-2-4	0	0-15	75-100	65-100	45-100	20-95	27-47	8-22
	10-27	Channery clay loam, clay loam, silty clay loam, clay, gravelly silty clay loam	CH, CL, SC	A-7-6	0	0-15	70-100	60-100	55-100	45-95	45-69	22-39
	27-43	Clay loam, clay, silty clay, gravelly silty clay, channery clay	CH, CL	A-7-6	0	0-35	85-100	85-100	75-100	60-95	41-61	18-32
	43-60	Bedrock			---	---	---	---	---	---	---	---

Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
EnD:												
Enders----------	0-6	Silt loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0-5	0-15	70-100	60-100	55-100	45-90	22-43	4-15
	6-10	Fine sandy loam, silt loam, silty clay loam, gravelly sandy clay loam	SC, CL	A-6, A-2-4	0	0-15	75-100	65-100	45-100	20-95	27-47	8-22
	10-27	Channery clay loam, clay loam, silty clay loam, clay, gravelly silty clay loam	CH, SC, CL	A-7-6	0	0-15	70-100	60-100	55-100	45-95	45-69	22-39
	27-43	Clay loam, clay, silty clay, gravelly silty clay, channery clay	CH, CL	A-7-6	0	0-35	85-100	85-100	75-100	60-95	41-61	18-32
	43-60	Bedrock			---	---	---	---	---	---	---	---
EuC:												
Enders----------	0-6	Silt loam	CL-ML, SC, SC-SM, CL	A-4, A-6	0-5	0-15	70-100	60-100	55-100	45-90	22-43	4-15
	6-10	Fine sandy loam, silt loam, silty clay loam, gravelly sandy clay loam	SC, CL	A-6, A-2-4	0	0-15	75-100	65-100	45-100	20-95	27-47	8-22
	10-27	Channery clay loam, clay loam, silty clay loam, clay, gravelly silty clay loam	CH, CL, SC	A-7-6	0	0-15	70-100	60-100	55-100	45-95	45-69	22-39
	27-43	Clay loam, clay, silty clay, gravelly silty clay, channery clay	CH, CL	A-7-6	0	0-35	85-100	85-100	75-100	60-95	41-61	18-32
	43-60	Bedrock			---	---	---	---	---	---	---	---
Urban land------	---	---	---	---	---	---	---	---	---	---	---	---
FtB:												
Fullerton-------	0-3	Gravelly silt loam	SC-SM, SM, ML	A-4	0	2-7	65-80	55-75	50-75	40-70	21-35	2-6
	3-6	Gravelly silt loam	CL-ML, SC-SM	A-4	0	2-7	65-80	55-75	50-75	40-70	26-39	5-9
	6-60	Gravelly clay, gravelly silty clay, gravelly silty clay loam	MH, ML, SM	A-6, A-7-6	0	2-7	65-80	55-75	50-75	40-70	40-76	13-26

Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
FtD:												
Fullerton-------	0-3	Gravelly silt loam	SM, SC-SM, ML	A-4	0	2-7	65-80	55-75	50-75	40-70	21-35	2-6
	3-6	Gravelly silt loam	CL-ML, SC-SM	A-4	0	2-7	65-80	55-75	50-75	40-70	26-39	5-9
	6-60	Gravelly clay, gravelly silty clay, gravelly silty clay loam	ML, MH, SM	A-6, A-7-6	0	2-7	65-80	55-75	50-75	40-70	40-76	13-26
FtE:												
Fullerton-------	0-3	Gravelly silt loam	SM, ML, SC-SM	A-4	0	2-7	65-80	55-75	50-75	40-70	21-35	2-6
	3-6	Gravelly silt loam	SC-SM, CL-ML	A-4	0	2-7	65-80	55-75	50-75	40-70	26-39	5-9
	6-60	Gravelly clay, gravelly silty clay, gravelly silty clay loam	SM, ML, MH	A-6, A-7-6	0	2-7	65-80	55-75	50-75	40-70	40-76	13-26
FtF:												
Fullerton-------	0-3	Gravelly silt loam	SM, ML, SC-SM	A-4	0	2-7	65-80	55-75	50-75	40-70	21-35	2-6
	3-6	Gravelly silt loam	CL-ML, SC-SM	A-4	0	2-7	65-80	55-75	50-75	40-70	26-39	5-9
	6-60	Gravelly clay, gravelly silty clay, gravelly silty clay loam	SM, ML, MH	A-6, A-7-6	0	2-7	65-80	55-75	50-75	40-70	40-76	13-26
FuE:												
Fullerton-------	0-3	Gravelly silt loam	SC-SM, SM, ML	A-4	0	2-7	65-80	55-75	50-75	40-70	21-35	2-6
	3-6	Gravelly silt loam	SC-SM, CL-ML	A-4	0	2-7	65-80	55-75	50-75	40-70	26-39	5-9
	6-60	Gravelly clay, gravelly silty clay, gravelly silty clay loam	SM, MH, ML	A-6, A-7-6	0	2-7	65-80	55-75	50-75	40-70	40-76	13-26
Urban land------	---	---	---	---	---	---	---	---	---	---	---	---
GrA:												
Guthrie---------	0-3	Silt loam	CL-ML, ML	A-4	0	0	85-100	75-100	70-100	55-90	22-39	3-11
	3-7	Silt loam	CL, ML, CL-ML	A-4	0	0	85-100	75-100	70-100	55-90	21-37	3-11
	7-25	Silty clay loam	ML	A-4, A-6	0	0	85-100	80-100	75-100	65-95	35-44	7-14
	25-60	Gravelly silty clay loam, very gravelly silty clay loam, very gravelly silt loam, gravelly silt loam	GC, GC-GM, SC, CL-ML, CL	A-2-4, A-6	0	0-3	45-100	30-100	30-100	20-95	27-44	7-16
HcB:												
Hanceville------	0-3	Loam	CL, CL-ML	A-4, A-6	0	0	90-100	90-100	75-95	50-75	23-41	6-16
	3-10	Clay loam, loam	CL	A-6	0	0	95-100	90-100	80-100	55-80	32-47	11-22
	10-21	Clay loam, clay	CL, CH	A-7-6	0	0	95-100	90-100	80-100	65-95	39-55	18-29
	21-60	Clay loam, clay	CH, CL	A-7-6	0	0	95-100	90-100	80-100	65-95	43-63	22-36

Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	Percentage passing sieve number--: 10	Percentage passing sieve number--: 40	Percentage passing sieve number--: 200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
HcD:												
Hanceville------	0-3	Loam	CL, CL-ML	A-4, A-6	0	0	90-100	90-100	75-95	50-75	23-41	6-16
	3-10	Clay loam, loam	CL	A-6	0	0	95-100	90-100	80-100	55-80	32-47	11-22
	10-21	Clay loam, clay	CL, CH	A-7-6	0	0	95-100	90-100	80-100	65-95	39-55	18-29
	21-60	Clay loam, clay	CL, CH	A-7-6	0	0	95-100	90-100	80-100	65-95	43-63	22-36
HcE:												
Hanceville------	0-3	Loam	CL, CL-ML	A-4, A-6	0	0	90-100	90-100	75-95	50-75	23-41	6-16
	3-10	Clay loam, loam	CL	A-6	0	0	95-100	90-100	80-100	55-80	32-47	11-22
	10-21	Clay loam, clay	CL, CH	A-7-6	0	0	95-100	90-100	80-100	65-95	39-55	18-29
	21-60	Clay loam, clay	CL, CH	A-7-6	0	0	95-100	90-100	80-100	65-95	43-63	22-36
HnC:												
Hanceville------	0-3	Loam	CL-ML, CL	A-4, A-6	0	0	90-100	90-100	75-95	50-75	23-41	6-16
	3-10	Clay loam, loam	CL	A-6	0	0	95-100	90-100	80-100	55-80	32-47	11-22
	10-21	Clay loam, clay	CL, CH	A-7-6	0	0	95-100	90-100	80-100	65-95	39-55	18-29
	21-60	Clay loam, clay	CL, CH	A-7-6	0	0	95-100	90-100	80-100	65-95	43-63	22-36
Urban land------	---	---	---	---	---	---	---	---	---	---	---	---
HrF:												
Hector----------	0-4	Very gravelly sandy loam	SM, SC-SM	A-2-4, A-4, A-1	0-7	0-7	65-100	55-100	30-70	15-40	15-31	1-6
	4-11	Sandy loam, gravelly sandy loam, loamy sand	SM, SC-SM	A-1, A-2-4, A-4	0-7	0-7	65-100	55-100	40-75	10-40	15-28	1-6
	11-19	Sandy loam, gravelly sandy loam, loamy sand, fine sandy loam	SC-SM, CL, CL-ML	A-1, A-2-4, A-4	0-7	0-7	75-100	65-100	40-85	10-55	15-32	1-8
	19-60	Bedrock			---	---	---	---	---	---	---	---
Townley---------	0-5	Silt loam	CL-ML, SC-SM, SC, CL	A-4, A-6	0	0-1	60-90	50-90	45-90	35-80	21-41	4-16
	5-16	Channery silty clay loam, silty clay, clay	CH, CL, SC	A-6, A-7-6	0	0-1	60-90	50-90	45-90	35-85	38-56	16-29
	16-27	Channery silty clay loam, silty clay, clay	CH, SC, CL	A-7-6	0	0-1	70-85	60-80	55-80	45-75	43-67	22-39
	27-60	Bedrock			---	---	---	---	---	---	---	---
Rock outcrop----	0-60	Bedrock			---	---	---	---	---	---	---	---

Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
HsB:												
Holston---------	0-7	Fine sandy loam	CL-ML, SC-SM, SM, ML	A-2-4, A-4	0	0-2	85-100	75-100	55-85	30-55	21-35	3-8
	7-26	Silty clay loam, clay loam, sandy clay loam, loam	ML, CL, SC	A-2-4, A-6	0	0-2	85-100	75-100	60-100	30-95	29-44	8-16
	26-60	Clay loam, silty clay loam, sandy clay loam	SC, ML, CL	A-2-6, A-6	0	0-13	65-100	55-100	45-100	20-95	31-49	10-18
HsD:												
Holston---------	0-7	Fine sandy loam	CL-ML, SC-SM, SM, ML	A-2-4, A-4	0	0-2	85-100	75-100	55-85	30-55	21-35	3-8
	7-26	Silty clay loam, clay loam, sandy clay loam, loam	ML, SC, CL	A-2-4, A-6	0	0-2	85-100	75-100	60-100	30-95	29-44	8-16
	26-60	Clay loam, silty clay loam, sandy clay loam	SC, ML, CL	A-2-6, A-6	0	0-13	65-100	55-100	45-100	20-95	31-49	10-18
JfF:												
Jefferson-------	0-5	Gravelly sandy loam	SM, SC-SM	A-1, A-2-4	0	0-5	65-95	55-90	30-65	15-35	17-41	1-8
	5-10	Sandy loam, loam, gravelly fine sandy loam	SC-SM, CL-ML, SM	A-1, A-4, A-2-4	0	0-5	70-90	55-90	35-85	15-70	21-39	3-11
	10-40	Loam, sandy loam, gravelly sandy loam, gravelly sandy clay loam, clay loam, very gravelly sandy clay loam	SC-SM, CL, SC, CL-ML	A-6, A-4, A-2-4	0	0-5	70-90	55-90	35-90	15-70	24-40	6-13
	40-60	Extremely gravelly sandy loam, very gravelly sandy loam, gravelly sandy loam	GC-GM, SC-SM, GW-GM	A-1, A-2-4	0	2-15	35-75	15-70	10-50	5-25	20-32	3-8

Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
JfG:												
Jefferson-------	0-5	Gravelly sandy loam	SM, SC-SM	A-1, A-2-4	0	0-5	65-95	55-90	30-65	15-35	17-41	1-8
	5-10	Sandy loam, loam, gravelly fine sandy loam	SM, CL-ML, SC-SM	A-1, A-4, A-2-4	0	0-5	70-90	55-90	35-85	15-70	21-39	3-11
	10-40	Loam, sandy loam, gravelly sandy loam, gravelly sandy clay loam, clay loam, very gravelly sandy clay loam	SC, CL-ML, CL, SC-SM	A-6, A-4, A-2-4	0	0-5	70-90	55-90	35-90	15-70	24-40	6-13
	40-60	Extremely gravelly sandy loam, very gravelly sandy loam, gravelly sandy loam	GC-GM, SC-SM, GW-GM	A-1, A-2-4	0	2-15	35-75	15-70	10-50	5-25	20-32	3-8
JsE:												
Junaluska-------	0-5	Loam	SC-SM, ML, GM	A-4	0-1	5-15	70-90	60-85	50-80	35-65	22-45	2-9
	5-16	Channery silty clay loam, channery sandy clay loam, silty clay loam, clay loam	ML, SM	A-4, A-6, A-2-4	0-1	1-2	65-85	55-85	45-85	20-80	34-45	9-13
	16-29	Channery silty clay loam, channery sandy clay loam, silty clay loam, clay loam	ML, SM	A-2-4, A-4, A-6	0-1	5-15	75-90	65-85	50-85	20-85	33-44	9-13
	29-60	Bedrock			---	---	---	---	---	---	---	---
JsF:												
Junaluska-------	0-5	Loam	GM, SC-SM, ML	A-4	0-1	5-15	70-90	60-85	50-80	35-65	22-45	2-9
	5-16	Channery silty clay loam, channery sandy clay loam, silty clay loam, clay loam	SM, ML	A-4, A-6, A-2-4	0-1	1-2	65-85	55-85	45-85	20-80	34-45	9-13
	16-29	Channery silty clay loam, channery sandy clay loam, silty clay loam, clay loam	ML, SM	A-2-4, A-4, A-6	0-1	5-15	75-90	65-85	50-85	20-85	33-44	9-13
	29-60	Bedrock			---	---	---	---	---	---	---	---

Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
JsG:												
Junaluska-------	0-5	Loam	SC-SM, ML, GM	A-4	0-1	5-15	70-90	60-85	50-80	35-65	22-45	2-9
	5-16	Channery silty clay loam, channery sandy clay loam, silty clay loam, clay loam	SM, ML	A-4, A-6, A-2-4	0-1	1-2	65-85	55-85	45-85	20-80	34-45	9-13
	16-29	Channery silty clay loam, channery sandy clay loam, silty clay loam, clay loam	ML, SM	A-2-4, A-4, A-6	0-1	5-15	75-90	65-85	50-85	20-85	33-44	9-13
	29-60	Bedrock			---	---	---	---	---	---	---	---
JtE:												
Junaluska-------	0-5	Loam	GM, ML, SC-SM	A-4	0-1	5-15	70-90	60-85	50-80	35-65	22-45	2-9
	5-16	Channery silty clay loam, channery sandy clay loam, silty clay loam, clay loam	ML, SM	A-4, A-6, A-2-4	0-1	1-2	65-85	55-85	45-85	20-80	34-45	9-13
	16-29	Channery silty clay loam, channery sandy clay loam, silty clay loam, clay loam	ML, SM	A-2-4, A-4, A-6	0-1	5-15	75-90	65-85	50-85	20-85	33-44	9-13
	29-60	Bedrock			---	---	---	---	---	---	---	---
Tsali-----------	0-4	Channery loam	SM, ML, SC-SM	A-4	0-3	0-20	70-100	60-100	50-95	35-75	20-41	1-8
	4-14	Clay loam, channery sandy clay loam, channery loam, channery clay loam	CL, CL-ML, SC, SC-SM	A-6, A-2-4	0-3	0-20	70-100	60-100	45-100	20-80	24-44	6-16
	14-60	Bedrock			---	---	---	---	---	---	---	---
JtF:												
Junaluska-------	0-5	Loam	GM, SC-SM, ML	A-4	0-1	5-15	70-90	60-85	50-80	35-65	22-45	2-9
	5-16	Channery silty clay loam, channery sandy clay loam, silty clay loam, clay loam	SM, ML	A-4, A-6, A-2-4	0-1	1-2	65-85	55-85	45-85	20-80	34-45	9-13
	16-29	Channery silty clay loam, channery sandy clay loam, silty clay loam, clay loam	ML, SM	A-2-4, A-4, A-6	0-1	5-15	75-90	65-85	50-85	20-85	33-44	9-13
	29-60	Bedrock			---	---	---	---	---	---	---	---

Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	Percentage passing sieve number--: 10	Percentage passing sieve number--: 40	Percentage passing sieve number--: 200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
Tsali-----------	0-4	Channery loam	ML, SM, SC-SM	A-4	0-3	0-20	70-100	60-100	50-95	35-75	20-41	1-8
	4-14	Clay loam, channery sandy clay loam, channery loam, channery clay loam	SC-SM, SC, CL-ML, CL	A-6, A-2-4	0-3	0-20	70-100	60-100	45-100	20-80	24-44	6-16
	14-60	Bedrock			---	---	---	---	---	---	---	---
KtA:												
Ketona----------	0-7	Silt loam	CL	A-6	0	0	95-100	95-100	85-100	65-90	30-42	11-16
	7-22	Silty clay, silty clay loam	CH, CL	A-7-6	0	0	85-100	80-100	75-100	70-95	46-70	22-39
	22-64	Clay, silty clay	CH, CL	A-7-6	0	0	90-100	85-100	75-100	65-95	49-69	25-39
LyE:												
Lily------------	0-5	Fine sandy loam	SC-SM, ML, SM	A-4, A-2-4	0	0-5	70-100	60-100	40-85	25-55	17-31	1-6
	5-10	Sandy loam, gravelly sandy loam, gravelly loam	CL, CL-ML, SC, SC-SM	A-4, A-1, A-2-4	0	0-5	70-100	60-100	35-95	20-75	21-36	3-11
	10-32	Sandy clay loam, very gravelly sandy clay loam, gravelly sandy clay loam	SC, CL	A-2-4, A-6	0	0-10	65-100	55-100	45-90	20-55	29-40	8-13
	32-39	Loamy sand, coarse sandy loam, sandy loam, loamy coarse sand	SM, SC-SM	A-4, A-1, A-2-4	0	0-10	70-100	55-100	30-75	10-40	16-27	1-6
	39-60	Bedrock			---	---	---	---	---	---	---	---
MnC:												
Minvale---------	0-5	Gravelly silt loam	ML, SM, SC-SM, CL-ML	A-4	0	0-5	65-80	50-70	45-70	35-65	21-35	3-8
	5-12	Gravelly silty clay loam, gravelly silt loam, gravelly loam	SC-SM, CL, CL-ML, SC	A-4, A-6, A-2-4	0	0-5	65-80	50-70	45-70	30-70	21-41	3-13
	12-40	Gravelly silty clay loam, gravelly clay loam	ML, SM, SC-SM, SC, CL	A-6	0	0-5	65-80	55-75	50-75	40-75	35-49	11-18
	40-60	Gravelly silty clay loam, gravelly silty clay, gravelly clay loam	SC, SM, ML, SC-SM, CL	A-6, A-7-6	0	0-5	65-80	55-75	50-75	40-75	37-57	13-23
Urban land------	---	---	---	---	---	---	---	---	---	---	---	---

Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	Percentage passing sieve number--: 10	Percentage passing sieve number--: 40	Percentage passing sieve number--: 200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
MoF:												
Montevallo------	0-5	Very channery loam	SM, ML, SC-SM	A-4	0-1	5-15	70-85	60-80	50-75	35-60	19-43	1-11
	5-10	Very channery clay loam, extremely channery silty clay loam, very channery loam, extremely channery loam	GC-GM, SC-SM, SC, GC	A-2-6, A-6, A-2-4	0-1	10-20	45-65	30-55	25-55	15-50	24-45	6-16
	10-60	Bedrock			---	---	---	---	---	---	---	---
MtD:												
Montevallo------	0-5	Very channery loam	SC-SM, ML, SM	A-4	0-1	5-15	70-85	60-80	50-75	35-60	19-43	1-11
	5-10	Very channery clay loam, extremely channery silty clay loam, very channery loam, extremely channery loam	SC-SM, SC, GC-GM, GC	A-2-6, A-6, A-2-4	0-1	10-20	45-65	30-55	25-55	15-50	24-45	6-16
	10-60	Bedrock			---	---	---	---	---	---	---	---
Townley---------	0-5	Silt loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0-1	60-90	50-90	45-90	35-80	21-41	4-16
	5-16	Channery silty clay loam, silty clay, clay	CH, CL, SC	A-6, A-7-6	0	0-1	60-90	50-90	45-90	35-85	38-56	16-29
	16-27	Channery silty clay loam, silty clay, clay	CH, SC, CL	A-7-6	0	0-1	70-85	60-80	55-80	45-75	43-67	22-39
	27-60	Bedrock			---	---	---	---	---	---	---	---
MtE:												
Montevallo------	0-5	Very channery loam	SC-SM, ML, SM	A-4	0-1	5-15	70-85	60-80	50-75	35-60	19-43	1-11
	5-10	Very channery clay loam, extremely channery silty clay loam, very channery loam, extremely channery loam	SC, SC-SM, GC, GC-GM	A-2-6, A-6, A-2-4	0-1	10-20	45-65	30-55	25-55	15-50	24-45	6-16
	10-60	Bedrock			---	---	---	---	---	---	---	---
Townley---------	0-5	Silt loam	CL-ML, SC, CL, SC-SM	A-4, A-6	0	0-1	60-90	50-90	45-90	35-80	21-41	4-16
	5-16	Channery silty clay loam, silty clay, clay	SC, CL, CH	A-6, A-7-6	0	0-1	60-90	50-90	45-90	35-85	38-56	16-29
	16-27	Channery silty clay loam, silty clay, clay	SC, CL, CH	A-7-6	0	0-1	70-85	60-80	55-80	45-75	43-67	22-39
	27-60	Bedrock			---	---	---	---	---	---	---	---

Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
MuE:												
Montevallo------	0-5	Very channery loam	SM, ML, SC-SM	A-4	0-1	5-15	70-85	60-80	50-75	35-60	19-43	1-11
	5-10	Very channery clay loam, extremely channery silty clay loam, very channery loam, extremely channery loam	GC, GC-GM, SC-SM, SC	A-2-6, A-6, A-2-4	0-1	10-20	45-65	30-55	25-55	15-50	24-45	6-16
	10-60	Bedrock			---	---	---	---	---	---	---	---
Urban land------	---	---	---	---	---	---	---	---	---	---	---	---
NaD:												
Nauvoo----------	0-5	Fine sandy loam	SM, ML, SC-SM, CL-ML	A-4	0	0-2	85-100	80-100	55-85	30-55	17-35	1-8
	5-12	Fine sandy loam	CL-ML, SC-SM, SM, ML	A-4	0	0-2	85-100	80-100	55-85	30-55	17-33	1-8
	12-29	Loam, sandy clay loam, clay loam	CL, CL-ML, SC, SC-SM	A-4, A-6, A-2-4	0	0-2	85-100	80-100	55-100	30-80	21-45	3-16
	29-56	Clay loam, very channery fine sandy loam, sandy loam, sandy clay loam	CL, CL-ML, SC, SC-SM	A-4, A-6, A-2-4, A-1	0	0-3	70-100	60-100	35-100	20-80	20-40	3-13
	56-60	Bedrock			---	---	---	---	---	---	---	---
NaE:												
Nauvoo----------	0-5	Fine sandy loam	SM, ML, CL-ML, SC-SM	A-4	0	0-2	85-100	80-100	55-85	30-55	17-35	1-8
	5-12	Fine sandy loam	ML, SM, SC-SM, CL-ML	A-4	0	0-2	85-100	80-100	55-85	30-55	17-33	1-8
	12-29	Loam, sandy clay loam, clay loam	SC-SM, SC, CL-ML, CL	A-4, A-6, A-2-4	0	0-2	85-100	80-100	55-100	30-80	21-45	3-16
	29-56	Clay loam, very channery fine sandy loam, sandy loam, sandy clay loam	SC-SM, CL, CL-ML, SC	A-4, A-6, A-2-4, A-1	0	0-3	70-100	60-100	35-100	20-80	20-40	3-13
	56-60	Bedrock			---	---	---	---	---	---	---	---

Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
NeB:												
Nella-----------	0-5	Gravelly fine sandy loam	SC-SM, SM	A-1, A-4, A-2-4	0	2-7	65-90	55-75	40-65	20-40	17-33	1-6
	5-10	Gravelly fine sandy loam, gravelly sandy loam, fine sandy loam, sandy loam	SC-SM, SM	A-1, A-2-4, A-4	0	2-7	65-90	55-75	30-65	15-40	17-31	1-6
	10-13	Gravelly fine sandy loam, sandy loam, gravelly sandy loam, fine sandy loam	SC-SM, SM	A-1, A-2-4, A-4	0	2-7	65-95	55-75	30-65	15-40	17-35	1-8
	13-38	Gravelly clay loam, gravelly loam, sandy clay loam, clay loam, gravelly sandy clay loam, loam	CL, SC-SM, SC, CL-ML, ML, SM	A-1, A-2-4, A-4, A-6	0	2-7	65-95	55-75	45-75	20-60	20-40	3-13
	38-65	Gravelly clay loam, clay loam, clay, sandy clay loam, very gravelly sandy clay loam, gravelly sandy clay loam	SM, SC, CL	A-6, A-7-6, A-2-4	0	2-7	65-80	55-75	45-75	20-70	29-53	8-21
NeD:												
Nella-----------	0-5	Gravelly fine sandy loam	SM, SC-SM	A-1, A-4, A-2-4	0	2-7	65-90	55-75	40-65	20-40	17-33	1-6
	5-10	Gravelly fine sandy loam, gravelly sandy loam, fine sandy loam, sandy loam	SC-SM, SM	A-1, A-2-4, A-4	0	2-7	65-90	55-75	30-65	15-40	17-31	1-6
	10-13	Sandy loam, gravelly sandy loam, gravelly fine sandy loam, fine sandy loam	SC-SM, SM	A-1, A-2-4, A-4	0	2-7	65-95	55-75	30-65	15-40	17-35	1-8
	13-38	Gravelly clay loam, gravelly loam, sandy clay loam, clay loam, gravelly sandy clay loam, loam	CL, SC-SM, SM, ML, CL-ML, SC	A-1, A-2-4, A-4, A-6	0	2-7	65-95	55-75	45-75	20-60	20-40	3-13
	38-65	Gravelly clay loam, clay loam, clay, sandy clay loam, very gravelly sandy clay loam, gravelly sandy clay loam	CL, SM, SC	A-6, A-7-6, A-2-4	0	2-7	65-80	55-75	45-75	20-70	29-53	8-21

Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
NeE:												
Nella-----------	0-5	Gravelly fine sandy loam	SM, SC-SM	A-1, A-4, A-2-4	0	2-7	65-90	55-75	40-65	20-40	17-33	1-6
	5-10	Gravelly fine sandy loam, gravelly sandy loam, fine sandy loam, sandy loam	SC-SM, SM	A-1, A-2-4, A-4	0	2-7	65-90	55-75	30-65	15-40	17-31	1-6
	10-13	Sandy loam, gravelly sandy loam, gravelly fine sandy loam, fine sandy loam	SC-SM, SM	A-1, A-2-4, A-4	0	2-7	65-95	55-75	30-65	15-40	17-35	1-8
	13-38	Gravelly clay loam, gravelly loam, sandy clay loam, clay loam, gravelly sandy clay loam, loam	SM, ML, SC, SC-SM, CL, CL-ML	A-1, A-2-4, A-4, A-6	0	2-7	65-95	55-75	45-75	20-60	20-40	3-13
	38-65	Gravelly clay loam, clay loam, clay, sandy clay loam, very gravelly sandy clay loam, gravelly sandy clay loam	SM, SC, CL	A-6, A-7-6, A-2-4	0	2-7	65-80	55-75	45-75	20-70	29-53	8-21
NeF:												
Nella-----------	0-5	Gravelly fine sandy loam	SC-SM, SM	A-1, A-4, A-2-4	0	2-7	65-90	55-75	40-65	20-40	17-33	1-6
	5-10	Gravelly fine sandy loam, gravelly sandy loam, fine sandy loam, sandy loam	SC-SM, SM	A-1, A-2-4, A-4	0	2-7	65-90	55-75	30-65	15-40	17-31	1-6
	10-13	Sandy loam, gravelly sandy loam, gravelly fine sandy loam, fine sandy loam	SC-SM, SM	A-1, A-2-4, A-4	0	2-7	65-95	55-75	30-65	15-40	17-35	1-8
	13-38	Gravelly clay loam, gravelly loam, sandy clay loam, clay loam, gravelly sandy clay loam, loam	CL-ML, SC-SM, CL, ML, SM, SC	A-1, A-2-4, A-4, A-6	0	2-7	65-95	55-75	45-75	20-60	20-40	3-13
	38-65	Gravelly clay loam, clay loam, clay, sandy clay loam, very gravelly sandy clay loam, gravelly sandy clay loam	SM, SC, CL	A-6, A-7-6, A-2-4	0	2-7	65-80	55-75	45-75	20-70	29-53	8-21

Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct	Pct					Pct	
NtF:												
Nella-----------	0-5	Gravelly fine sandy loam	SM, SC-SM	A-1, A-4, A-2-4	0	2-7	65-90	55-75	40-65	20-40	17-33	1-6
	5-10	Gravelly fine sandy loam, gravelly sandy loam, fine sandy loam, sandy loam	SM, SC-SM	A-1, A-2-4, A-4	0	2-7	65-90	55-75	30-65	15-40	17-31	1-6
	10-13	Sandy loam, gravelly sandy loam, gravelly fine sandy loam, fine sandy loam	SM, SC-SM	A-1, A-2-4, A-4	0	2-7	65-95	55-75	30-65	15-40	17-35	1-8
	13-38	Gravelly clay loam, gravelly loam, sandy clay loam, clay loam, gravelly sandy clay loam, loam	CL, SC-SM, SC, SM, ML, CL-ML	A-1, A-2-4, A-4, A-6	0	2-7	65-95	55-75	45-75	20-60	20-40	3-13
	38-65	Gravelly clay loam, clay loam, clay, sandy clay loam, very gravelly sandy clay loam, gravelly sandy clay loam	SM, SC, CL	A-6, A-7-6, A-2-4	0	2-7	65-80	55-75	45-75	20-70	29-53	8-21
Hector----------	0-4	Very gravelly sandy loam	SC-SM, SM	A-2-4, A-4, A-1	0-7	0-7	65-100	55-100	30-70	15-40	15-31	1-6
	4-11	Sandy loam, gravelly sandy loam, loamy sand	SC-SM, SM	A-1, A-2-4, A-4	0-7	0-7	65-100	55-100	40-75	10-40	15-28	1-6
	11-19	Sandy loam, gravelly sandy loam, loamy sand, fine sandy loam	CL, CL-ML, SC-SM	A-1, A-2-4, A-4	0-7	0-7	75-100	65-100	40-85	10-55	15-32	1-8
	19-60	Bedrock			---	---	---	---	---	---	---	---
Townley---------	0-5	Silt loam	SC, SC-SM, CL-ML, CL	A-4, A-6	0	0-1	60-90	50-90	45-90	35-80	21-41	4-16
	5-16	Channery silty clay loam, silty clay, clay	CL, SC, CH	A-6, A-7-6	0	0-1	60-90	50-90	45-90	35-85	38-56	16-29
	16-27	Channery silty clay loam, silty clay, clay	CL, SC, CH	A-7-6	0	0-1	70-85	60-80	55-80	45-75	43-67	22-39
	27-60	Bedrock			---	---	---	---	---	---	---	---

Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
PaE:												
Panama----------	0-5	Very gravelly fine sandy loam	SC-SM, SM	A-1, A-4, A-2-4	0	0-12	60-85	45-80	30-70	15-45	17-28	1-6
	5-29	Gravelly loam, extremely gravelly fine sandy loam, gravelly fine sandy loam, very gravelly fine sandy loam	SC-SM, CL-ML, SM, ML	A-1, A-2-4, A-4	0	0-12	50-85	35-80	25-80	15-60	21-32	3-8
	29-55	Very gravelly sandy clay loam	SC-SM, SM	A-2-4, A-2-6	0	0	55-60	40-50	30-45	15-30	29-40	6-13
	55-80	Channery silty clay loam	SM, ML	A-6	0	0	50-75	40-65	35-65	30-65	39-50	13-18
PaF:												
Panama----------	0-5	Very gravelly fine sandy loam	SM, SC-SM	A-1, A-4, A-2-4	0	0-12	60-85	45-80	30-70	15-45	17-28	1-6
	5-29	Gravelly loam, extremely gravelly fine sandy loam, gravelly fine sandy loam, very gravelly fine sandy loam	SC-SM, CL-ML, SM, ML	A-1, A-2-4, A-4	0	0-12	50-85	35-80	25-80	15-60	21-32	3-8
	29-55	Very gravelly sandy clay loam	SM, SC-SM	A-2-4, A-2-6	0	0	55-60	40-50	30-45	15-30	29-40	6-13
	55-80	Channery silty clay loam	ML, SM	A-6	0	0	50-75	40-65	35-65	30-65	39-50	13-18
PcD:												
Pigeonroost-----	0-6	Loam	ML, SM, SC-SM	A-4	0-3	0-25	80-100	70-100	60-95	45-75	20-37	1-6
	6-12	Loam, sandy loam, fine sandy loam	SM, ML, SC-SM, CL-ML	A-4, A-1, A-2-4	0-3	0-25	80-100	70-100	45-95	20-75	16-32	1-8
	12-34	Channery silty clay loam, channery clay loam, clay loam, gravelly sandy clay loam	SC-SM, SC, CL, ML, SM	A-2-4, A-6	0-3	0-30	65-100	55-100	45-100	20-95	29-44	8-16
	34-60	Bedrock			---	---	---	---	---	---	---	---
Cheoah----------	0-12	Loam	ML, SC-SM	A-4	0	2-10	80-95	70-90	60-85	50-65	29-50	1-7
	12-32	Loam, sandy loam	ML, SC-SM	A-4	0	2-10	80-95	70-90	45-85	20-70	17-35	1-7
	32-54	Loam, sandy loam	SC-SM, CL-ML	A-4	0	5-15	85-95	80-95	70-90	50-65	16-30	1-7
	54-59	Fine sandy loam, sandy loam, loam	CL-ML, SC-SM	A-4	0	5-15	85-95	80-95	50-90	50-65	16-30	1-7
	59-65	Bedrock			---	---	---	---	---	---	---	---

Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
Qu:												
Pits, quarries--	---	---	---	---	---	---	---	---	---	---	---	---
Rk:												
Rock outcrop----	0-60	Bedrock			---	---	---	---	---	---	---	---
SaA:												
Sequatchie------	0-15	Loam	ML, CL-ML	A-4	0	0	90-100	85-100	70-95	50-75	22-41	3-11
	15-55	Clay loam, silty clay loam, loam	CL-ML, ML, CL	A-4, A-6	0	0	90-100	85-100	70-100	50-95	28-45	7-16
	55-60	Sandy clay loam, silty clay loam	SM, CL, SC	A-4, A-2-4	0	0	90-100	85-100	70-100	30-95	29-40	8-11
SaB:												
Sequatchie------	0-15	Loam	ML, CL-ML	A-4	0	0	90-100	85-100	70-95	50-75	22-41	3-11
	15-55	Clay loam, silty clay loam, loam	ML, CL-ML, CL	A-4, A-6	0	0	90-100	85-100	70-100	50-95	28-45	7-16
	55-60	Sandy clay loam	SM, CL, SC	A-4, A-2-4	0	0	90-100	85-100	70-100	30-95	29-40	8-11
ScB:												
Shack-----------	0-6	Gravelly silt loam	SC-SM, SM, ML	A-4	0	0	60-80	50-75	45-75	35-65	18-31	1-6
	6-15	Gravelly silt loam, gravelly loam	SC-SM, CL, CL-ML, SC	A-4, A-2-4	0	0	60-80	50-75	45-75	30-65	21-37	3-11
	15-22	Gravelly clay loam, gravelly silty clay loam, gravelly silt loam	CL, SC, ML, SM	A-6, A-4	0	0-1	60-80	50-75	45-75	35-70	29-44	8-16
	22-29	Gravelly silty clay loam, gravelly clay loam, gravelly loam	ML, SM, CL, SC	A-6, A-4	0	0-1	70-85	60-80	50-80	35-75	29-44	8-16
	29-60	Gravelly silty clay loam, gravelly clay loam	SM, ML, SC, CL	A-6	0	0-1	65-80	55-75	50-75	35-70	35-49	11-18
Guthrie---------	0-3	Silt loam	CL-ML, ML	A-4	0	0	85-100	75-100	70-100	55-90	22-39	3-11
	3-7	Silt loam	CL, CL-ML, ML	A-4	0	0	85-100	75-100	70-100	55-90	21-37	3-11
	7-25	Silty clay loam	ML	A-4, A-6	0	0	85-100	80-100	75-100	65-95	35-44	7-14
	25-60	Gravelly silty clay loam, very gravelly silty clay loam, very gravelly silt loam, gravelly silt loam	CL, GC-GM, GC, SC, CL-ML	A-2-4, A-6	0	0-3	45-100	30-100	30-100	20-95	27-44	7-16

Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
SdD:												
Shack-----------	0-6	Gravelly silt loam	ML, SM, SC-SM	A-4	0	0	60-80	50-75	45-75	35-65	18-31	1-6
	6-15	Gravelly silt loam, gravelly loam	SC-SM, SC, CL-ML, CL	A-4, A-2-4	0	0	60-80	50-75	45-75	30-65	21-37	3-11
	15-22	Gravelly clay loam, gravelly silty clay loam, gravelly silt loam	SC, SM, ML, CL	A-6, A-4	0	0-1	60-80	50-75	45-75	35-70	29-44	8-16
	22-29	Gravelly silty clay loam, gravelly clay loam, gravelly loam	SC, CL, SM, ML	A-6, A-4	0	0-1	70-85	60-80	50-80	35-75	29-44	8-16
	29-60	Gravelly silty clay loam, gravelly clay loam	ML, SM, CL, SC	A-6	0	0-1	65-80	55-75	50-75	35-70	35-49	11-18
Bodine----------	0-4	Very gravelly silt loam	SC-SM, GC, GC-GM, SC	A-1, A-6, A-2-4	0-5	5-15	45-65	25-50	20-50	15-45	22-41	6-19
	4-16	Extremely gravelly silt loam, very gravelly silt loam	GC, GC-GM, SC, SC-SM	A-6, A-1, A-2-4	0-5	5-15	45-65	25-50	20-50	15-45	21-40	6-19
	16-60	Extremely gravelly clay loam, extremely gravelly loam, extremely gravelly silty clay loam	GC	A-2-6	0-10	15-20	40-45	20-30	15-30	12-30	29-45	13-25
Minvale---------	0-5	Gravelly silt loam	SC-SM, CL-ML, SM, ML	A-4	0	0-5	65-80	50-70	45-70	35-65	21-35	3-8
	5-12	Gravelly silty clay loam, gravelly silt loam, gravelly loam	SC-SM, CL, SC, CL-ML	A-4, A-6, A-2-4	0	0-5	65-80	50-70	45-70	30-70	21-41	3-13
	12-40	Gravelly silty clay loam, gravelly clay loam	SC-SM, CL, ML, SM, SC	A-6	0	0-5	65-80	55-75	50-75	40-75	35-49	11-18
	40-60	Gravelly silty clay loam, gravelly silty clay, gravelly clay loam	ML, SC, SC-SM, CL, SM	A-6, A-7-6	0	0-5	65-80	55-75	50-75	40-75	37-57	13-23

Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
SdE:												
Shack-----------	0-6	Gravelly silt loam	SC-SM, ML, SM	A-4	0	0	60-80	50-75	45-75	35-65	18-31	1-6
	6-15	Gravelly silt loam, gravelly loam	SC, SC-SM, CL, CL-ML	A-4, A-2-4	0	0	60-80	50-75	45-75	30-65	21-37	3-11
	15-22	Gravelly clay loam, gravelly silty clay loam, gravelly silt loam	SC, SM, ML, CL	A-6, A-4	0	0-1	60-80	50-75	45-75	35-70	29-44	8-16
	22-29	Gravelly silty clay loam, gravelly clay loam, gravelly loam	SC, CL, SM, ML	A-6, A-4	0	0-1	70-85	60-80	50-80	35-75	29-44	8-16
	29-60	Gravelly silty clay loam, gravelly clay loam	CL, SM, ML, SC	A-6	0	0-1	65-80	55-75	50-75	35-70	35-49	11-18
Bodine----------	0-4	Very gravelly silt loam	GC, GC-GM, SC, SC-SM	A-1, A-6, A-2-4	0-5	5-15	45-65	25-50	20-50	15-45	22-41	6-19
	4-16	Extremely gravelly silt loam, very gravelly silt loam	GC, GC-GM, SC, SC-SM	A-6, A-1, A-2-4	0-5	5-15	45-65	25-50	20-50	15-45	21-40	6-19
	16-60	Extremely gravelly clay loam, extremely gravelly loam, extremely gravelly silty clay loam	GC	A-2-6	0-10	15-20	40-45	20-30	15-30	12-30	29-45	13-25
Minvale---------	0-5	Gravelly silt loam	CL-ML, SC-SM, SM, ML	A-4	0	0-5	65-80	50-70	45-70	35-65	21-35	3-8
	5-12	Gravelly silty clay loam, gravelly silt loam, gravelly loam	SC, SC-SM, CL, CL-ML	A-4, A-6, A-2-4	0	0-5	65-80	50-70	45-70	30-70	21-41	3-13
	12-40	Gravelly silty clay loam, gravelly clay loam	CL, SC, SM, ML, SC-SM	A-6	0	0-5	65-80	55-75	50-75	40-75	35-49	11-18
	40-60	Gravelly silty clay loam, gravelly silty clay, gravelly clay loam	SM, ML, SC, SC-SM, CL	A-6, A-7-6	0	0-5	65-80	55-75	50-75	40-75	37-57	13-23

Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
SeA:												
Shellbluff------	0-19	Silt loam	ML	A-4	0	0	95-100	90-100	80-100	65-90	17-33	1-6
	19-50	Loam, fine sandy loam, silt loam, silty clay loam, clay loam	SC-SM, CL, CL-ML, SC	A-4, A-6	0	0	95-100	90-100	65-100	35-95	26-47	6-16
	50-60	Loam, fine sandy loam, silt loam, clay loam, silty clay loam	SM, SC-SM, CL-ML, ML	A-4	0	0	95-100	90-100	65-100	35-95	16-40	1-11
Ketona----------	0-7	Silt loam	CL	A-6	0	0	95-100	95-100	85-100	65-90	30-42	11-16
	7-22	Silty clay, silty clay loam	CH, CL	A-7-6	0	0	85-100	80-100	75-100	70-95	46-70	22-39
	22-64	Clay, silty clay	CH, CL	A-7-6	0	0	90-100	85-100	75-100	65-95	49-69	25-39
ShC:												
Shelocta--------	0-4	Channery loam	SM, SC-SM, ML	A-4	0-1	0-15	70-100	60-100	50-95	35-75	19-41	1-8
	4-45	Channery loam, gravelly silty clay loam, channery silty clay loam, silty clay loam	CL-ML, SC, SC-SM, CL	A-2-4, A-4, A-6	0-2	0-20	60-100	45-100	40-100	30-95	25-47	5-15
	45-60	Channery loam, very channery loam, very gravelly loam, gravelly silt loam	CL, SC, SC-SM, CL-ML	A-4, A-2-4	0-2	0-20	60-100	45-100	40-100	30-90	16-31	1-8
SpD:												
Sipsey----------	0-7	Fine sandy loam	CL-ML, SM, ML, SC-SM	A-4	0	0-5	85-100	80-100	55-85	35-55	17-35	1-8
	7-16	Fine sandy loam, sandy loam, loam	SC-SM, CL, CL-ML, SC	A-4, A-2-4	0	0-5	85-100	80-100	50-95	25-75	21-37	3-11
	16-34	Clay loam, sandy clay loam, loam	SC-SM, SC, CL	A-2-4, A-6	0	0-5	85-100	80-100	65-100	30-85	29-44	8-16
	34-60	Bedrock			---	---	---	---	---	---	---	---
SpE:												
Sipsey----------	0-7	Fine sandy loam	ML, SM, CL-ML, SC-SM	A-4	0	0-5	85-100	80-100	55-85	35-55	17-35	1-8
	7-16	Fine sandy loam, sandy loam, loam	CL, CL-ML, SC, SC-SM	A-4, A-2-4	0	0-5	85-100	80-100	50-95	25-75	21-37	3-11
	16-34	Clay loam, sandy clay loam, loam	SC, CL, SC-SM	A-2-4, A-6	0	0-5	85-100	80-100	65-100	30-85	29-44	8-16
	34-60	Bedrock			---	---	---	---	---	---	---	---

Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	Percentage passing sieve number--: 10	Percentage passing sieve number--: 40	Percentage passing sieve number--: 200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
SuB:												
Subligna--------	0-4	Extremely gravelly sandy loam	GW-GM, GC-GM, ML, SW-SM, SC-SM	A-1, A-4, A-2-4	0	5-10	30-85	10-80	5-75	5-60	17-31	1-4
	4-16	Extremely gravelly sandy loam, very gravelly silt loam, extremely gravelly silt loam, very gravelly fine sandy loam	SW-SM, SC-SM, GC-GM, GW-GM, CL-ML, ML	A-1, A-2-4, A-4	0	5-10	30-85	10-80	5-80	5-75	17-28	1-6
	16-60	Extremely gravelly loamy sand, extremely gravelly sandy loam, extremely gravelly sand	GM, SC-SM, GW-GM, SW-SM, GC-GM	A-1, A-2-4	0	5-10	30-85	10-80	5-60	5-35	16-23	1-3
SxA:												
Suches----------	0-6	Loam	ML	A-4	0	0	90-100	85-100	70-95	50-75	20-35	1-6
	6-55	Sandy loam, fine sandy loam, silt loam, silty clay loam, loam, sandy clay loam, clay loam	SC-SM, SC, CL-ML, CL	A-2-4, A-6	0	0	90-100	85-100	50-100	25-95	26-47	6-16
	55-60	Sandy loam, fine sandy loam, silt loam, sandy clay loam, clay loam, loamy sand	SC, SC-SM, SM	A-2-4, A-2	0	0	90-100	85-100	45-100	15-30	16-40	1-13
TnB:												
Townley---------	0-5	Silt loam	SC, CL, SC-SM, CL-ML	A-4, A-6	0	0-1	60-90	50-90	45-90	35-80	21-41	4-16
	5-16	Channery silty clay loam, silty clay, clay	CH, CL, SC	A-6, A-7-6	0	0-1	60-90	50-90	45-90	35-85	38-56	16-29
	16-27	Channery silty clay loam, silty clay, clay	SC, CL, CH	A-7-6	0	0-1	70-85	60-80	55-80	45-75	43-67	22-39
	27-60	Bedrock			---	---	---	---	---	---	---	---
TnD:												
Townley---------	0-5	Silt loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0-1	60-90	50-90	45-90	35-80	21-41	4-16
	5-16	Channery silty clay loam, silty clay, clay	CH, CL, SC	A-6, A-7-6	0	0-1	60-90	50-90	45-90	35-85	38-56	16-29
	16-27	Channery silty clay loam, silty clay, clay	CL, SC, CH	A-7-6	0	0-1	70-85	60-80	55-80	45-75	43-67	22-39
	27-60	Bedrock			---	---	---	---	---	---	---	---

Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
TnE:												
Townley---------	0-5	Silt loam	SC, CL-ML, SC-SM, CL	A-4, A-6	0	0-1	60-90	50-90	45-90	35-80	21-41	4-16
	5-16	Channery silty clay loam, silty clay, clay	CL, CH, SC	A-6, A-7-6	0	0-1	60-90	50-90	45-90	35-85	38-56	16-29
	16-27	Channery silty clay loam, silty clay, clay	CL, SC, CH	A-7-6	0	0-1	70-85	60-80	55-80	45-75	43-67	22-39
	27-60	Bedrock			---	---	---	---	---	---	---	---
TnF:												
Townley---------	0-5	Silt loam	CL, SC-SM, CL-ML, SC	A-4, A-6	0	0-1	60-90	50-90	45-90	35-80	21-41	4-16
	5-16	Channery silty clay loam, silty clay, clay	CL, CH, SC	A-6, A-7-6	0	0-1	60-90	50-90	45-90	35-85	38-56	16-29
	16-27	Channery silty clay loam, silty clay, clay	CL, CH, SC	A-7-6	0	0-1	70-85	60-80	55-80	45-75	43-67	22-39
	27-60	Bedrock			---	---	---	---	---	---	---	---
TrC:												
Townley---------	0-5	Silt loam	CL-ML, CL, SC, SC-SM	A-4, A-6	0	0-1	60-90	50-90	45-90	35-80	21-41	4-16
	5-16	Channery silty clay loam, silty clay, clay	SC, CL, CH	A-6, A-7-6	0	0-1	60-90	50-90	45-90	35-85	38-56	16-29
	16-27	Channery silty clay loam, silty clay, clay	CL, SC, CH	A-7-6	0	0-1	70-85	60-80	55-80	45-75	43-67	22-39
	27-60	Bedrock			---	---	---	---	---	---	---	---
Urban land------	---	---	---	---	---	---	---	---	---	---	---	---
TsE:												
Tsali-----------	0-4	Channery loam	SC-SM, ML, SM	A-4	0-3	0-20	70-100	60-100	50-95	35-75	20-41	1-8
	4-14	Clay loam, channery sandy clay loam, channery loam, channery clay loam	SC, CL-ML, CL, SC-SM	A-6, A-2-4	0-3	0-20	70-100	60-100	45-100	20-80	24-44	6-16
	14-60	Bedrock			---	---	---	---	---	---	---	---
TsF:												
Tsali-----------	0-4	Channery loam	ML, SM, SC-SM	A-4	0-3	0-20	70-100	60-100	50-95	35-75	20-41	1-8
	4-14	Clay loam, channery sandy clay loam, channery loam, channery clay loam	SC-SM, SC, CL-ML, CL	A-6, A-2-4	0-3	0-20	70-100	60-100	45-100	20-80	24-44	6-16
	14-60	Bedrock			---	---	---	---	---	---	---	---

Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	Percentage passing sieve number--: 10	Percentage passing sieve number--: 40	Percentage passing sieve number--: 200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
TsG:												
Tsali-----------	0-4	Channery loam	SM, SC-SM, ML	A-4	0-3	0-20	70-100	60-100	50-95	35-75	20-41	1-8
	4-14	Clay loam, channery sandy clay loam, channery loam, channery clay loam	CL, CL-ML, SC, SC-SM	A-6, A-2-4	0-3	0-20	70-100	60-100	45-100	20-80	24-44	6-16
	14-60	Bedrock			---	---	---	---	---	---	---	---
Uc:												
Ultic Udarents, channery-------	---	---	---	---	---	---	---	---	---	---	---	---
Ug:												
Ultic Udarents, gravelly-------	---	---	---	---	---	---	---	---	---	---	---	---
UrC:												
Urban land------	---	---	---	---	---	---	---	---	---	---	---	---
WaA:												
Wax-------------	0-9	Fine sandy loam	SC-SM, SM	A-2-4, A-4	0	0	80-95	75-90	55-75	30-50	22-37	3-8
	9-22	Loam, silt loam	CL-ML, CL, ML	A-4	0	0	80-95	75-90	65-90	45-80	21-37	3-11
	22-29	Silty clay loam, loam, clay loam	CL, CL-ML, ML	A-6, A-4	0	0	80-95	80-90	65-90	45-85	26-45	6-16
	29-36	Very gravelly loam, very gravelly sandy clay loam, gravelly clay loam	SC-SM, SC, CL, CL-ML	A-6, A-2-6, A-2-4	0	0	50-80	30-75	25-75	10-60	24-44	6-16
	36-60	Extremely gravelly clay loam	ML, SC-SM	A-6, A-2-6, A-2-4	0	0	45-80	30-75	30-75	20-60	35-44	10-16
Guthrie---------	0-3	Silt loam	CL-ML, ML	A-4	0	0	85-100	75-100	70-100	55-90	22-39	3-11
	3-7	Silt loam	CL, CL-ML, ML	A-4	0	0	85-100	75-100	70-100	55-90	21-37	3-11
	7-25	Silty clay loam	ML	A-4, A-6	0	0	85-100	80-100	75-100	65-95	35-44	7-14
	25-60	Gravelly silty clay loam, very gravelly silty clay loam, very gravelly silt loam, gravelly silt loam	SC, GC, GC-GM, CL-ML, CL	A-2-4, A-6	0	0-3	45-100	30-100	30-100	20-95	27-44	7-16

Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
WaB:												
Wax-------------	0-9	Fine sandy loam	SC-SM, SM	A-2-4, A-4	0	0	80-95	75-90	55-75	30-50	22-37	3-8
	9-22	Loam, silt loam	ML, CL, CL-ML	A-4	0	0	80-95	75-90	65-90	45-80	21-37	3-11
	22-29	Silty clay loam, loam, clay loam	CL-ML, CL, ML	A-6, A-4	0	0	80-95	80-90	65-90	45-85	26-45	6-16
	29-36	Very gravelly loam, very gravelly sandy clay loam, gravelly clay loam	SC, SC-SM, CL, CL-ML	A-6, A-2-6, A-2-4	0	0	50-80	30-75	25-75	10-60	24-44	6-16
	36-60	Extremely gravelly clay loam	SC-SM, ML	A-6, A-2-6, A-2-4	0	0	45-80	30-75	30-75	20-60	35-44	10-16
WnB:												
Waynesboro------	0-6	Sandy loam	SM, SC-SM	A-4, A-2-4	0	0-5	85-100	80-100	50-70	25-40	18-35	1-6
	6-36	Clay loam, clay, sandy clay loam	ML, SM, MH, SC-SM	A-4, A-2-4, A-6	0	0-5	85-100	80-100	65-100	30-95	30-54	6-17
	36-60	Clay loam, clay	MH, ML, SC-SM	A-6, A-7-6	0	0-5	85-100	80-100	75-100	55-95	40-66	13-22
WnD:												
Waynesboro------	0-6	Sandy loam	SM, SC-SM	A-4, A-2-4	0	0-5	85-100	80-100	50-70	25-40	18-35	1-6
	6-36	Clay loam, clay, sandy clay loam	ML, MH, SC-SM, SM	A-4, A-2-4, A-6	0	0-5	85-100	80-100	65-100	30-95	30-54	6-17
	36-60	Clay loam, clay	ML, MH, SC-SM	A-6, A-7-6	0	0-5	85-100	80-100	75-100	55-95	40-66	13-22
WsC:												
Waynesboro------	0-6	Sandy loam	SC-SM, SM	A-4, A-2-4	0	0-5	85-100	80-100	50-70	25-40	18-35	1-6
	6-36	Clay loam, clay, sandy clay loam	ML, SM, SC-SM, MH	A-4, A-2-4, A-6	0	0-5	85-100	80-100	65-100	30-95	30-54	6-17
	36-60	Clay loam, clay	MH, ML, SC-SM	A-6, A-7-6	0	0-5	85-100	80-100	75-100	55-95	40-66	13-22
Urban land------	---	---	---	---	---	---	---	---	---	---	---	---
WtA:												
Whitwell--------	0-4	Silt loam	ML, CL-ML	A-4	0	0-3	85-100	80-100	70-100	55-90	22-41	3-11
	4-6	Silt loam, clay loam	CL, ML, CL-ML	A-4, A-6	0	0-3	85-100	80-100	70-100	55-90	28-43	7-14
	6-24	Silty clay loam, silt loam, clay loam	CL, ML	A-6, A-4	0	0-3	85-100	80-100	70-100	55-95	30-50	8-18
	24-46	Silt loam, clay loam	CL, ML	A-6, A-4	0	0-3	85-100	80-100	75-100	55-90	29-49	8-18
	46-60	Sandy loam, sandy clay loam	CL-ML, SC-SM, SC, CL	A-6, A-4, A-2-4	0	0-3	90-100	80-100	50-90	25-55	20-44	3-16

Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
Guthrie---------	0-3	Silt loam	ML, CL-ML	A-4	0	0	85-100	75-100	70-100	55-90	22-39	3-11
	3-7	Silt loam	ML, CL-ML, CL	A-4	0	0	85-100	75-100	70-100	55-90	21-37	3-11
	7-25	Silty clay loam	ML	A-4, A-6	0	0	85-100	80-100	75-100	65-95	35-44	7-14
	25-60	Gravelly silty clay loam, very gravelly silty clay loam, very gravelly silt loam, gravelly silt loam	GC-GM, GC, CL-ML, SC, CL	A-2-4, A-6	0	0-3	45-100	30-100	30-100	20-95	27-44	7-16
Ketona----------	0-7	Silt loam	CL	A-6	0	0	95-100	95-100	85-100	65-90	30-42	11-16
	7-22	Silty clay, silty clay loam	CL, CH	A-7-6	0	0	85-100	80-100	75-100	70-95	46-70	22-39
	22-64	Clay, silty clay	CH, CL	A-7-6	0	0	90-100	85-100	75-100	65-95	49-69	25-39
WtB:												
Whitwell--------	0-4	Silt loam	ML, CL-ML	A-4	0	0-3	85-100	80-100	70-100	55-90	22-41	3-11
	4-6	Silt loam, clay loam	CL, ML, CL-ML	A-4, A-6	0	0-3	85-100	80-100	70-100	55-90	28-43	7-14
	6-24	Silty clay loam, silt loam, clay loam	ML, CL	A-6, A-4	0	0-3	85-100	80-100	70-100	55-95	30-50	8-18
	24-46	Silt loam, clay loam	CL, ML	A-6, A-4	0	0-3	85-100	80-100	75-100	55-90	29-49	8-18
	46-60	Sandy loam, sandy clay loam	SC-SM, CL-ML, SC, CL	A-6, A-4, A-2-4	0	0-3	90-100	80-100	50-90	25-55	20-44	3-16
WuA:												
Whitwell--------	0-4	Silt loam	ML, CL-ML	A-4	0	0-3	85-100	80-100	70-100	55-90	22-41	3-11
	4-6	Silt loam, clay loam	CL-ML, ML, CL	A-4, A-6	0	0-3	85-100	80-100	70-100	55-90	28-43	7-14
	6-24	Silty clay loam, silt loam, clay loam	CL, ML	A-6, A-4	0	0-3	85-100	80-100	70-100	55-95	30-50	8-18
	24-46	Silt loam, clay loam	CL, ML	A-6, A-4	0	0-3	85-100	80-100	75-100	55-90	29-49	8-18
	46-60	Sandy loam, sandy clay loam	SC, SC-SM, CL, CL-ML	A-6, A-4, A-2-4	0	0-3	90-100	80-100	50-90	25-55	20-44	3-16
Urban land------	---	---	---	---	---	---	---	---	---	---	---	---
Ketona----------	0-7	Silt loam	CL	A-6	0	0	95-100	95-100	85-100	65-90	30-42	11-16
	7-22	Silty clay, silty clay loam	CL, CH	A-7-6	0	0	85-100	80-100	75-100	70-95	46-70	22-39
	22-64	Clay, silty clay	CH, CL	A-7-6	0	0	90-100	85-100	75-100	65-95	49-69	25-39

Physical and Chemical Soil Properties

(Entries under "Erosion factors--T" apply to the entire profile. Absence of an entry indicates that data were not estimated.)

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Soil reaction	Organic matter	Erosion factors Kw	Kf	T
	In	Pct	g/cc	In/hr	In/in	Pct	pH	Pct			
AbB:											
Albertville-------	0-6	17-27	1.35-1.50	0.6-2	0.18-0.20	0.0-2.9	4.5-6.0	1.0-3.0	.28	.28	4
	6-9	17-40	1.45-1.55	0.6-2	0.12-0.18	0.0-2.9	4.5-6.0	0.2-1.0	.32	.32	
	9-47	27-60	1.30-1.55	0.2-0.6	0.14-0.21	3.0-5.9	4.5-5.0	0.0-0.5	.37	.37	
	47-60	---	---	---	0.00-0.00	---	---	---	---	---	
AbD:											
Albertville-------	0-6	17-27	1.35-1.50	0.6-2	0.18-0.20	0.0-2.9	4.5-6.0	1.0-3.0	.28	.28	4
	6-9	17-40	1.45-1.55	0.6-2	0.12-0.18	0.0-2.9	4.5-6.0	0.2-1.0	.32	.32	
	9-47	27-60	1.30-1.55	0.2-0.6	0.14-0.21	3.0-5.9	4.5-5.0	0.0-0.5	.37	.37	
	47-60	---	---	---	0.00-0.00	---	---	---	---	---	
AnB:											
Allen-------------	0-5	7-25	1.30-1.50	0.6-2	0.14-0.19	0.0-2.9	4.5-5.0	0.8-3.0	.28	.28	5
	5-14	7-30	1.30-1.50	0.6-2	0.14-0.19	0.0-2.9	4.5-5.0	0.5-2.0	.28	.28	
	14-51	10-35	1.40-1.60	0.6-2	0.12-0.17	0.0-2.9	4.5-5.0	0.2-0.8	.20	.20	
	51-60	27-45	1.40-1.60	0.6-2	0.10-0.17	0.0-2.9	4.5-5.0	0.0-0.5	.20	.20	
AnD:											
Allen-------------	0-5	7-25	1.30-1.50	0.6-2	0.14-0.19	0.0-2.9	4.5-5.0	0.8-3.0	.28	.28	5
	5-14	7-30	1.30-1.50	0.6-2	0.14-0.19	0.0-2.9	4.5-5.0	0.5-2.0	.28	.28	
	14-51	10-35	1.40-1.60	0.6-2	0.12-0.17	0.0-2.9	4.5-5.0	0.2-0.8	.20	.20	
	51-60	27-45	1.40-1.60	0.6-2	0.10-0.17	0.0-2.9	4.5-5.0	0.0-0.5	.20	.20	
AnE:											
Allen-------------	0-5	7-25	1.30-1.50	0.6-2	0.14-0.19	0.0-2.9	4.5-5.0	0.8-3.0	.28	.28	5
	5-14	7-30	1.30-1.50	0.6-2	0.14-0.19	0.0-2.9	4.5-5.0	0.5-2.0	.28	.28	
	14-51	10-35	1.40-1.60	0.6-2	0.12-0.17	0.0-2.9	4.5-5.0	0.2-0.8	.20	.20	
	51-60	27-45	1.40-1.60	0.6-2	0.10-0.17	0.0-2.9	4.5-5.0	0.0-0.5	.20	.20	
ArC:											
Allen-------------	0-5	7-25	1.30-1.50	0.6-2	0.14-0.19	0.0-2.9	4.5-5.0	0.8-3.0	.28	.28	5
	5-14	7-30	1.30-1.50	0.6-2	0.14-0.19	0.0-2.9	4.5-5.0	0.5-2.0	.28	.28	
	14-51	10-35	1.40-1.60	0.6-2	0.12-0.17	0.0-2.9	4.5-5.0	0.2-0.8	.20	.20	
	51-60	27-45	1.40-1.60	0.6-2	0.10-0.17	0.0-2.9	4.5-5.0	0.0-0.5	.20	.20	
Urban land--------	---	---	---	---	---	---	---	---	---	---	--
ArE:											
Allen-------------	0-5	7-25	1.30-1.50	0.6-2	0.14-0.19	0.0-2.9	4.5-5.0	0.8-3.0	.28	.28	5
	5-14	7-30	1.30-1.50	0.6-2	0.14-0.19	0.0-2.9	4.5-5.0	0.5-2.0	.28	.28	
	14-51	10-35	1.40-1.60	0.6-2	0.12-0.17	0.0-2.9	4.5-5.0	0.2-0.8	.20	.20	
	51-60	27-45	1.40-1.60	0.6-2	0.10-0.17	0.0-2.9	4.5-5.0	0.0-0.5	.20	.20	
Urban land--------	---	---	---	---	---	---	---	---	---	---	--
AuA:											
Arkabutla---------	0-6	5-25	1.40-1.50	0.6-2	0.20-0.22	0.0-2.9	5.6-6.0	1.0-3.0	.43	.43	5
	6-13	10-25	1.40-1.50	0.6-2	0.14-0.20	0.0-2.9	5.6-6.0	0.5-1.0	.43	.43	
	13-18	20-35	1.45-1.55	0.6-2	0.18-0.21	0.0-2.9	4.5-5.5	0.0-0.5	.32	.32	
	18-63	20-35	1.45-1.55	0.6-2	0.18-0.21	0.0-2.9	4.5-5.5	0.0-0.5	.32	.32	
Ketona------------	0-7	18-27	1.20-1.55	0.6-2	0.14-0.20	3.0-5.9	6.1-8.4	1.0-3.0	.32	.32	3
	7-22	35-60	1.20-1.35	0.06-0.2	0.12-0.18	6.0-9.0	6.1-8.4	0.2-1.0	.32	.32	
	22-64	40-60	1.30-1.70	0.06-0.2	0.14-0.17	6.0-9.0	6.1-8.4	0.0-0.5	.32	.32	

Physical and Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Soil reaction	Organic matter	Erosion factors Kw	Kf	T
	In	Pct	g/cc	In/hr	In/in	Pct	pH	Pct			
BoD:											
Bodine	0-4	10-27	1.35-1.55	2-6	0.06-0.11	0.0-2.9	4.5-5.0	1.0-2.0	.28	.37	5
	4-16	10-27	1.35-1.55	2-6	0.05-0.10	0.0-2.9	4.5-5.0	0.5-1.5	.24	.32	
	16-60	20-35	1.40-1.60	2-6	0.05-0.10	0.0-2.9	4.5-5.0	0.0-1.0	.24	.32	
BoE:											
Bodine	0-4	10-27	1.35-1.55	2-6	0.06-0.11	0.0-2.9	4.5-5.0	1.0-2.0	.28	.37	5
	4-16	10-27	1.35-1.55	2-6	0.05-0.10	0.0-2.9	4.5-5.0	0.5-1.5	.24	.32	
	16-60	20-35	1.40-1.60	2-6	0.05-0.10	0.0-2.9	4.5-5.0	0.0-1.0	.24	.32	
BoF:											
Bodine	0-4	10-27	1.35-1.55	2-6	0.06-0.11	0.0-2.9	4.5-5.0	1.0-2.0	.28	.37	5
	4-16	10-27	1.35-1.55	2-6	0.05-0.10	0.0-2.9	4.5-5.0	0.5-1.5	.24	.32	
	16-60	20-35	1.40-1.60	2-6	0.05-0.10	0.0-2.9	4.5-5.0	0.0-1.0	.24	.32	
CaA:											
Capshaw	0-7	15-27	1.35-1.50	0.6-2	0.18-0.22	0.0-2.9	5.1-6.0	1.0-3.0	.37	.37	3
	7-14	27-45	1.35-1.55	0.06-0.2	0.16-0.20	0.0-2.9	5.1-6.0	0.5-1.0	.37	.37	
	14-55	35-70	1.40-1.60	0.06-0.2	0.12-0.16	3.0-5.9	5.1-6.0	0.0-0.5	.24	.24	
	55-64	---	---	---	0.00-0.00	---	---	---	---	---	
Ketona	0-7	18-27	1.20-1.55	0.6-2	0.14-0.20	3.0-5.9	6.1-8.4	1.0-3.0	.32	.32	3
	7-22	35-60	1.20-1.35	0.06-0.2	0.12-0.18	6.0-9.0	6.1-8.4	0.2-1.0	.32	.32	
	22-64	40-60	1.30-1.70	0.06-0.2	0.14-0.17	6.0-9.0	6.1-8.4	0.0-0.5	.32	.32	
Guthrie	0-3	10-25	1.35-1.55	0.6-2	0.20-0.22	0.0-2.9	5.1-6.0	1.0-2.0	.43	.43	4
	3-7	10-25	1.40-1.60	0.6-2	0.18-0.20	0.0-2.9	5.1-6.0	0.5-1.0	.43	.43	
	7-25	27-35	1.60-1.75	0.2-0.6	0.03-0.05	0.0-2.9	5.1-6.0	0.0-0.5	.43	.43	
	25-60	18-35	1.60-1.75	0.06-0.2	0.03-0.05	0.0-2.9	5.1-6.0	0.0-0.5	.37	.43	
CaB:											
Capshaw	0-7	15-27	1.35-1.50	0.6-2	0.18-0.22	0.0-2.9	5.1-6.0	1.0-3.0	.37	.37	3
	7-14	27-45	1.35-1.55	0.06-0.2	0.16-0.20	0.0-2.9	5.1-6.0	0.5-1.0	.37	.37	
	14-55	35-70	1.40-1.60	0.06-0.2	0.12-0.16	3.0-5.9	5.1-6.0	0.0-0.5	.24	.24	
	55-64	---	---	---	0.00-0.00	---	---	---	---	---	
Ketona	0-7	18-27	1.20-1.55	0.6-2	0.14-0.20	3.0-5.9	6.1-8.4	1.0-3.0	.32	.32	3
	7-22	35-60	1.20-1.35	0.06-0.2	0.12-0.18	6.0-9.0	6.1-8.4	0.2-1.0	.32	.32	
	22-64	40-60	1.30-1.70	0.06-0.2	0.14-0.17	6.0-9.0	6.1-8.4	0.0-0.5	.32	.32	
Guthrie	0-3	10-25	1.35-1.55	0.6-2	0.20-0.22	0.0-2.9	5.1-6.0	1.0-2.0	.43	.43	4
	3-7	10-25	1.40-1.60	0.6-2	0.18-0.20	0.0-2.9	5.1-6.0	0.5-1.0	.43	.43	
	7-25	27-35	1.60-1.75	0.2-0.6	0.03-0.05	0.0-2.9	5.1-6.0	0.0-0.5	.43	.43	
	25-60	18-35	1.60-1.75	0.06-0.2	0.03-0.05	0.0-2.9	5.1-6.0	0.0-0.5	.37	.43	
CkE:											
Cataska	0-2	12-22	1.30-1.40	2-20	0.10-0.14	0.0-2.9	4.5-5.0	1.0-3.0	.20	.32	2
	2-16	12-22	1.30-1.45	2-20	0.04-0.09	0.0-2.9	4.5-5.0	0.5-2.0	.15	.32	
	16-27	---	---	---	0.00-0.01	---	---	---	---	---	
	27-60	---	---	---	0.00-0.01	---	---	---	---	---	
CkF:											
Cataska	0-2	12-22	1.30-1.40	2-20	0.10-0.14	0.0-2.9	4.5-5.0	1.0-3.0	.20	.32	2
	2-16	12-22	1.30-1.45	2-20	0.04-0.09	0.0-2.9	4.5-5.0	0.5-2.0	.15	.32	
	16-27	---	---	---	0.00-0.01	---	---	---	---	---	
	27-60	---	---	---	0.00-0.01	---	---	---	---	---	

Physical and Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Soil reaction	Organic matter	Erosion factors		
									Kw	Kf	T
	In	Pct	g/cc	In/hr	In/in	Pct	pH	Pct			
CkG:											
Cataska-----------	0-2	12-22	1.30-1.40	2-20	0.10-0.14	0.0-2.9	4.5-5.0	1.0-3.0	.20	.32	2
	2-16	12-22	1.30-1.45	2-20	0.04-0.09	0.0-2.9	4.5-5.0	0.5-2.0	.15	.32	
	16-27	---	---	---	0.00-0.01	---	---	---	---	---	
	27-60	---	---	---	0.00-0.01	---	---	---	---	---	
CnA:											
Chenneby----------	0-11	12-27	1.30-1.60	0.6-2	0.14-0.20	0.0-2.9	4.5-6.0	0.5-3.0	.37	.37	5
	11-30	12-35	1.30-1.50	0.6-2	0.15-0.20	0.0-2.9	4.5-6.0	0.0-1.0	.32	.32	
	30-82	10-30	1.30-1.50	0.6-2	0.15-0.20	0.0-2.9	4.5-6.0	0.0-1.0	.32	.32	
Ketona------------	0-7	18-27	1.20-1.55	0.6-2	0.14-0.20	3.0-5.9	6.1-8.4	1.0-3.0	.32	.32	3
	7-22	35-60	1.20-1.35	0.06-0.2	0.12-0.18	6.0-9.0	6.1-8.4	0.2-1.0	.32	.32	
	22-64	40-60	1.30-1.70	0.06-0.2	0.14-0.17	6.0-9.0	6.1-8.4	0.0-0.5	.32	.32	
CoA:											
Chenneby----------	0-11	12-27	1.30-1.60	0.6-2	0.14-0.20	0.0-2.9	4.5-6.0	0.5-3.0	.37	.37	5
	11-30	12-35	1.30-1.50	0.6-2	0.15-0.20	0.0-2.9	4.5-6.0	0.0-1.0	.32	.32	
	30-82	10-30	1.30-1.50	0.6-2	0.15-0.20	0.0-2.9	4.5-6.0	0.0-1.0	.32	.32	
Urban land--------	---	---	---	---	---	---	---	---	---	---	--
Ketona------------	0-7	18-27	1.20-1.55	0.6-2	0.14-0.20	3.0-5.9	6.1-8.4	1.0-3.0	.32	.32	3
	7-22	35-60	1.20-1.35	0.06-0.2	0.12-0.18	6.0-9.0	6.1-8.4	0.2-1.0	.32	.32	
	22-64	40-60	1.30-1.70	0.06-0.2	0.14-0.17	6.0-9.0	6.1-8.4	0.0-0.5	.32	.32	
CrE:											
Cheoah------------	0-12	7-18	1.35-1.60	2-6	0.15-0.24	0.0-2.9	5.1-5.5	5.0-10	.28	.28	3
	12-32	5-18	1.35-1.60	2-6	0.14-0.22	0.0-2.9	5.1-5.5	0.5-3.0	.32	.32	
	32-54	5-18	1.35-1.60	2-6	0.11-0.17	0.0-2.9	5.1-5.5	0.0-0.5	.32	.32	
	54-59	5-18	1.35-1.60	2-6	0.09-0.15	0.0-2.9	5.1-5.5	0.0-0.5	.32	.32	
	59-65	---	---	---	0.00-0.01	---	---	---	---	---	
Edneytown---------	0-7	7-15	1.40-1.60	2-6	0.10-0.14	0.0-2.9	4.5-5.0	1.0-3.0	.15	.28	5
	7-10	7-15	1.40-1.60	2-6	0.10-0.14	0.0-2.9	4.5-5.0	0.5-2.0	.15	.28	
	10-35	15-35	1.30-1.40	0.6-2	0.12-0.18	0.0-2.9	4.5-5.0	0.2-0.8	.24	.24	
	35-45	10-20	1.30-1.50	0.6-2	0.11-0.14	0.0-2.9	4.5-5.0	0.2-0.8	.24	.24	
	45-60	4-15	1.30-1.50	2-6	0.06-0.12	0.0-2.9	4.5-5.0	0.0-0.5	.17	.24	
CsC:											
Conasauga---------	0-3	8-22	1.30-1.60	0.6-2	0.16-0.20	0.0-2.9	4.5-6.0	1.0-3.0	.43	.43	3
	3-6	8-22	1.30-1.60	0.6-2	0.16-0.20	0.0-2.9	4.5-6.0	1.0-3.0	.32	.32	
	6-34	27-60	1.10-1.50	0.06-0.2	0.12-0.20	3.0-5.9	4.5-6.0	0.5-1.0	.32	.32	
	34-38	27-37	1.30-1.45	0.06-0.2	0.17-0.21	3.0-5.9	4.5-6.0	0.0-0.5	.37	.37	
	38-60	---	---	---	0.00-0.00	---	---	---	---	---	
CuC:											
Conasauga---------	0-3	8-22	1.30-1.60	0.6-2	0.16-0.20	0.0-2.9	4.5-6.0	1.0-3.0	.43	.43	3
	3-6	8-22	1.30-1.60	0.6-2	0.16-0.20	0.0-2.9	4.5-6.0	1.0-3.0	.32	.32	
	6-34	27-60	1.10-1.50	0.06-0.2	0.12-0.20	3.0-5.9	4.5-6.0	0.5-1.0	.32	.32	
	34-38	27-37	1.30-1.45	0.06-0.2	0.17-0.21	3.0-5.9	4.5-6.0	0.0-0.5	.37	.37	
	38-60	---	---	---	0.00-0.00	---	---	---	---	---	
Urban land--------	---	---	---	---	---	---	---	---	---	---	--
CvB:											
Craigsville-------	0-4	5-15	1.20-1.40	2-20	0.07-0.15	0.0-2.9	5.1-5.5	1.0-5.0	.17	.28	3
	4-24	5-15	1.30-1.60	2-20	0.06-0.15	0.0-2.9	5.1-5.5	0.5-1.0	.17	.28	
	24-60	5-10	1.35-1.55	6-20	0.04-0.09	0.0-2.9	5.1-5.5	0.0-0.5	.17	.28	

Physical and Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Soil reaction	Organic matter	Erosion factors Kw	Kf	T
	In	Pct	g/cc	In/hr	In/in	Pct	pH	Pct			
CxB:											
Cunningham--------	0-8	10-27	1.25-1.50	0.6-2	0.10-0.18	0.0-2.9	4.5-6.0	1.0-3.0	.32	.32	4
	8-11	27-35	1.25-1.50	0.6-2	0.10-0.18	0.0-2.9	4.5-5.5	1.0-3.0	.32	.32	
	11-20	27-35	1.25-1.50	0.2-0.6	0.12-0.18	3.0-5.9	4.5-5.5	0.5-1.0	.28	.28	
	20-36	35-60	1.30-1.55	0.06-0.2	0.12-0.18	3.0-5.9	4.5-5.5	0.0-0.5	.28	.28	
	36-53	35-60	1.30-1.60	0.06-0.2	0.08-0.17	3.0-5.9	4.5-5.5	0.0-0.5	.28	.28	
	53-60	---	---	---	0.00-0.00	---	---	---	---	---	
CxD:											
Cunningham--------	0-8	10-27	1.25-1.50	0.6-2	0.10-0.18	0.0-2.9	4.5-6.0	1.0-3.0	.32	.32	4
	8-11	27-35	1.25-1.50	0.6-2	0.10-0.18	0.0-2.9	4.5-5.5	1.0-3.0	.32	.32	
	11-20	27-35	1.25-1.50	0.2-0.6	0.12-0.18	3.0-5.9	4.5-5.5	0.5-1.0	.28	.28	
	20-36	35-60	1.30-1.55	0.06-0.2	0.12-0.18	3.0-5.9	4.5-5.5	0.0-0.5	.28	.28	
	36-53	35-60	1.30-1.60	0.06-0.2	0.08-0.17	3.0-5.9	4.5-5.5	0.0-0.5	.28	.28	
	53-60	---	---	---	0.00-0.00	---	---	---	---	---	
CxE:											
Cunningham--------	0-8	10-27	1.25-1.50	0.6-2	0.10-0.18	0.0-2.9	4.5-6.0	1.0-3.0	.32	.32	4
	8-11	27-35	1.25-1.50	0.6-2	0.10-0.18	0.0-2.9	4.5-5.5	1.0-3.0	.32	.32	
	11-20	27-35	1.25-1.50	0.2-0.6	0.12-0.18	3.0-5.9	4.5-5.5	0.5-1.0	.28	.28	
	20-36	35-60	1.30-1.55	0.06-0.2	0.12-0.18	3.0-5.9	4.5-5.5	0.0-0.5	.28	.28	
	36-53	35-60	1.30-1.60	0.06-0.2	0.08-0.17	3.0-5.9	4.5-5.5	0.0-0.5	.28	.28	
	53-60	---	---	---	0.00-0.00	---	---	---	---	---	
CxF:											
Cunningham--------	0-8	10-27	1.25-1.50	0.6-2	0.10-0.18	0.0-2.9	4.5-6.0	1.0-3.0	.32	.32	4
	8-11	27-35	1.25-1.50	0.6-2	0.10-0.18	0.0-2.9	4.5-5.5	1.0-3.0	.32	.32	
	11-20	27-35	1.25-1.50	0.2-0.6	0.12-0.18	3.0-5.9	4.5-5.5	0.5-1.0	.28	.28	
	20-36	35-60	1.30-1.55	0.06-0.2	0.12-0.18	3.0-5.9	4.5-5.5	0.0-0.5	.28	.28	
	36-53	35-60	1.30-1.60	0.06-0.2	0.08-0.17	3.0-5.9	4.5-5.5	0.0-0.5	.28	.28	
	53-60	---	---	---	0.00-0.00	---	---	---	---	---	
DeB:											
Dewey-------------	0-8	10-25	1.35-1.50	0.6-2	0.15-0.21	0.0-2.9	4.5-6.5	1.0-3.0	.32	.32	5
	8-14	40-50	1.45-1.55	0.6-2	0.14-0.20	3.0-5.9	4.5-6.5	0.0-0.5	.24	.24	
	14-60	40-60	1.45-1.55	0.6-2	0.13-0.18	3.0-5.9	4.5-5.5	0.0-0.5	.24	.24	
DeD:											
Dewey-------------	0-8	10-25	1.35-1.50	0.6-2	0.15-0.21	0.0-2.9	4.5-6.5	1.0-3.0	.32	.32	5
	8-14	40-50	1.45-1.55	0.6-2	0.14-0.20	3.0-5.9	4.5-6.5	0.0-0.5	.24	.24	
	14-60	40-60	1.45-1.55	0.6-2	0.13-0.18	3.0-5.9	4.5-5.5	0.0-0.5	.24	.24	
DoA:											
Docena------------	0-3	10-25	1.35-1.55	0.6-2	0.14-0.22	0.0-2.9	4.5-6.0	0.5-2.0	.32	.32	4
	3-7	10-25	1.35-1.55	0.6-2	0.14-0.22	0.0-2.9	4.5-6.0	0.5-1.0	.32	.32	
	7-44	18-35	1.40-1.75	0.06-2	0.16-0.24	3.0-5.9	4.5-6.0	0.0-1.0	.28	.28	
	44-60	27-40	1.40-1.80	0.06-0.2	0.15-0.22	3.0-5.9	4.5-6.0	0.0-0.5	.32	.32	
Ketona------------	0-7	18-27	1.20-1.55	0.6-2	0.14-0.20	3.0-5.9	6.1-8.4	1.0-3.0	.32	.32	3
	7-22	35-60	1.20-1.35	0.06-0.2	0.12-0.18	6.0-9.0	6.1-8.4	0.2-1.0	.32	.32	
	22-64	40-60	1.30-1.70	0.06-0.2	0.14-0.17	6.0-9.0	6.1-8.4	0.0-0.5	.32	.32	
DsB:											
Docena------------	0-3	10-25	1.35-1.55	0.6-2	0.14-0.22	0.0-2.9	4.5-6.0	0.5-2.0	.32	.32	4
	3-7	10-25	1.35-1.55	0.6-2	0.14-0.22	0.0-2.9	4.5-6.0	0.5-1.0	.32	.32	
	7-44	18-35	1.40-1.75	0.06-2	0.16-0.24	3.0-5.9	4.5-6.0	0.0-1.0	.28	.28	
	44-60	27-40	1.40-1.80	0.06-0.2	0.15-0.22	3.0-5.9	4.5-6.0	0.0-0.5	.32	.32	

Physical and Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Soil reaction	Organic matter	Erosion factors		
									Kw	Kf	T
	In	Pct	g/cc	In/hr	In/in	Pct	pH	Pct			
Conasauga---------	0-3	8-22	1.30-1.60	0.6-2	0.16-0.20	0.0-2.9	4.5-6.0	1.0-3.0	.43	.43	3
	3-6	8-22	1.30-1.60	0.6-2	0.16-0.20	0.0-2.9	4.5-6.0	1.0-3.0	.32	.32	
	6-34	27-60	1.10-1.50	0.06-0.2	0.12-0.20	3.0-5.9	4.5-6.0	0.5-1.0	.32	.32	
	34-38	27-37	1.30-1.45	0.06-0.2	0.17-0.21	3.0-5.9	4.5-6.0	0.0-0.5	.37	.37	
	38-60	---	---	---	0.00-0.00	---	---	---	---	---	
Ketona------------	0-7	18-27	1.20-1.55	0.6-2	0.14-0.20	3.0-5.9	6.1-8.4	1.0-3.0	.32	.32	3
	7-22	35-60	1.20-1.35	0.06-0.2	0.12-0.18	6.0-9.0	6.1-8.4	0.2-1.0	.32	.32	
	22-64	40-60	1.30-1.70	0.06-0.2	0.14-0.17	6.0-9.0	6.1-8.4	0.0-0.5	.32	.32	
Du:											
Dumps-------------	---	---	---	---	---	---	---	---	---	---	--
EdF:											
Edneytown---------	0-7	7-15	1.40-1.60	2-6	0.10-0.14	0.0-2.9	4.5-5.0	1.0-3.0	.15	.28	5
	7-10	7-15	1.40-1.60	2-6	0.10-0.14	0.0-2.9	4.5-5.0	0.5-2.0	.15	.28	
	10-35	15-35	1.30-1.40	0.6-2	0.12-0.18	0.0-2.9	4.5-5.0	0.2-0.8	.24	.24	
	35-45	10-20	1.30-1.50	0.6-2	0.11-0.14	0.0-2.9	4.5-5.0	0.2-0.8	.24	.24	
	45-60	4-15	1.30-1.50	2-6	0.06-0.12	0.0-2.9	4.5-5.0	0.0-0.5	.17	.24	
EdG:											
Edneytown---------	0-7	7-15	1.40-1.60	2-6	0.10-0.14	0.0-2.9	4.5-5.0	1.0-3.0	.15	.28	5
	7-10	7-15	1.40-1.60	2-6	0.10-0.14	0.0-2.9	4.5-5.0	0.5-2.0	.15	.28	
	10-35	15-35	1.30-1.40	0.6-2	0.12-0.18	0.0-2.9	4.5-5.0	0.2-0.8	.24	.24	
	35-45	10-20	1.30-1.50	0.6-2	0.11-0.14	0.0-2.9	4.5-5.0	0.2-0.8	.24	.24	
	45-60	4-15	1.30-1.50	2-6	0.06-0.12	0.0-2.9	4.5-5.0	0.0-0.5	.17	.24	
EnB:											
Enders------------	0-6	10-25	1.25-1.50	0.6-2	0.10-0.18	0.0-2.9	4.5-5.5	0.5-2.0	.32	.32	4
	6-10	15-35	1.25-1.50	0.2-2	0.12-0.18	3.0-5.9	4.5-5.5	0.5-1.0	.28	.32	
	10-27	35-60	1.20-1.50	0.00-0.06	0.12-0.18	6.0-8.9	4.5-5.5	0.0-0.5	.24	.32	
	27-43	30-50	1.20-1.50	0.00-0.06	0.08-0.17	6.0-8.9	4.5-5.5	0.0-0.5	.24	.32	
	43-60	---	---	---	0.00-0.00	---	---	---	---	---	
EnD:											
Enders------------	0-6	10-25	1.25-1.50	0.6-2	0.10-0.18	0.0-2.9	4.5-5.5	0.5-2.0	.32	.32	4
	6-10	15-35	1.25-1.50	0.2-2	0.12-0.18	3.0-5.9	4.5-5.5	0.5-1.0	.28	.32	
	10-27	35-60	1.20-1.50	0.00-0.06	0.12-0.18	6.0-8.9	4.5-5.5	0.0-0.5	.24	.32	
	27-43	30-50	1.20-1.50	0.00-0.06	0.08-0.17	6.0-8.9	4.5-5.5	0.0-0.5	.24	.32	
	43-60	---	---	---	0.00-0.00	---	---	---	---	---	
EuC:											
Enders------------	0-6	10-25	1.25-1.50	0.6-2	0.10-0.18	0.0-2.9	4.5-5.5	0.5-2.0	.32	.32	4
	6-10	15-35	1.25-1.50	0.2-2	0.12-0.18	3.0-5.9	4.5-5.5	0.5-1.0	.28	.32	
	10-27	35-60	1.20-1.50	0.00-0.06	0.12-0.18	6.0-8.9	4.5-5.5	0.0-0.5	.24	.32	
	27-43	30-50	1.20-1.50	0.00-0.06	0.08-0.17	6.0-8.9	4.5-5.5	0.0-0.5	.24	.32	
	43-60	---	---	---	0.00-0.00	---	---	---	---	---	
Urban land--------	---	---	---	---	---	---	---	---	---	---	--
FtB:											
Fullerton---------	0-3	10-20	1.35-1.55	0.6-2	0.10-0.16	0.0-2.9	4.5-5.5	0.5-2.0	.28	.32	5
	3-6	15-27	1.45-1.55	0.6-2	0.10-0.15	0.0-2.9	4.5-5.5	0.5-1.0	.24	.28	
	6-60	35-70	1.40-1.55	0.6-2	0.10-0.14	3.0-5.9	4.5-5.5	0.0-0.5	.20	.24	
FtD:											
Fullerton---------	0-3	10-20	1.35-1.55	0.6-2	0.10-0.16	0.0-2.9	4.5-5.5	0.5-2.0	.28	.32	5
	3-6	15-27	1.45-1.55	0.6-2	0.10-0.15	0.0-2.9	4.5-5.5	0.5-1.0	.24	.28	
	6-60	35-70	1.40-1.55	0.6-2	0.10-0.14	3.0-5.9	4.5-5.5	0.0-0.5	.20	.24	

Physical and Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Soil reaction	Organic matter	Erosion factors Kw	Kf	T
	In	Pct	g/cc	In/hr	In/in	Pct	pH	Pct			
FtE:											
Fullerton---------	0-3	10-20	1.35-1.55	0.6-2	0.10-0.16	0.0-2.9	4.5-5.5	0.5-2.0	.28	.32	5
	3-6	15-27	1.45-1.55	0.6-2	0.10-0.15	0.0-2.9	4.5-5.5	0.5-1.0	.24	.28	
	6-60	35-70	1.40-1.55	0.6-2	0.10-0.14	3.0-5.9	4.5-5.5	0.0-0.5	.20	.24	
FtF:											
Fullerton---------	0-3	10-20	1.35-1.55	0.6-2	0.10-0.16	0.0-2.9	4.5-5.5	0.5-2.0	.28	.32	5
	3-6	15-27	1.45-1.55	0.6-2	0.10-0.15	0.0-2.9	4.5-5.5	0.5-1.0	.24	.28	
	6-60	35-70	1.40-1.55	0.6-2	0.10-0.14	3.0-5.9	4.5-5.5	0.0-0.5	.20	.24	
FuE:											
Fullerton---------	0-3	10-20	1.35-1.55	0.6-2	0.10-0.16	0.0-2.9	4.5-5.5	0.5-2.0	.28	.32	5
	3-6	15-27	1.45-1.55	0.6-2	0.10-0.15	0.0-2.9	4.5-5.5	0.5-1.0	.24	.28	
	6-60	35-70	1.40-1.55	0.6-2	0.10-0.14	3.0-5.9	4.5-5.5	0.0-0.5	.20	.24	
Urban land--------	---	---	---	---	---	---	---	---	---	---	--
GrA:											
Guthrie-----------	0-3	10-25	1.35-1.55	0.6-2	0.20-0.22	0.0-2.9	5.1-6.0	1.0-2.0	.43	.43	4
	3-7	10-25	1.40-1.60	0.6-2	0.18-0.20	0.0-2.9	5.1-6.0	0.5-1.0	.43	.43	
	7-25	27-35	1.60-1.75	0.2-0.6	0.03-0.05	0.0-2.9	5.1-6.0	0.0-0.5	.43	.43	
	25-60	18-35	1.60-1.75	0.06-0.2	0.03-0.05	0.0-2.9	5.1-6.0	0.0-0.5	.37	.43	
HcB:											
Hanceville--------	0-3	12-27	1.35-1.65	0.6-2	0.14-0.20	0.0-2.9	4.5-6.0	0.5-2.0	.24	.24	5
	3-10	20-35	1.30-1.60	0.6-2	0.14-0.20	3.0-5.9	4.5-5.5	0.5-1.0	.28	.28	
	10-21	30-45	1.30-1.60	0.6-2	0.14-0.20	3.0-5.9	4.5-5.5	0.0-0.5	.24	.24	
	21-60	35-55	1.30-1.60	0.6-2	0.14-0.20	3.0-5.9	4.5-5.5	0.0-0.5	.24	.24	
HcD:											
Hanceville--------	0-3	12-27	1.35-1.65	0.6-2	0.14-0.20	0.0-2.9	4.5-6.0	0.5-2.0	.24	.24	5
	3-10	20-35	1.30-1.60	0.6-2	0.14-0.20	3.0-5.9	4.5-5.5	0.5-1.0	.28	.28	
	10-21	30-45	1.30-1.60	0.6-2	0.14-0.20	3.0-5.9	4.5-5.5	0.0-0.5	.24	.24	
	21-60	35-55	1.30-1.60	0.6-2	0.14-0.20	3.0-5.9	4.5-5.5	0.0-0.5	.24	.24	
HcE:											
Hanceville--------	0-3	12-27	1.35-1.65	0.6-2	0.14-0.20	0.0-2.9	4.5-6.0	0.5-2.0	.24	.24	5
	3-10	20-35	1.30-1.60	0.6-2	0.14-0.20	3.0-5.9	4.5-5.5	0.5-1.0	.28	.28	
	10-21	30-45	1.30-1.60	0.6-2	0.14-0.20	3.0-5.9	4.5-5.5	0.0-0.5	.24	.24	
	21-60	35-55	1.30-1.60	0.6-2	0.14-0.20	3.0-5.9	4.5-5.5	0.0-0.5	.24	.24	
HnC:											
Hanceville--------	0-3	12-27	1.35-1.65	0.6-2	0.14-0.20	0.0-2.9	4.5-6.0	0.5-2.0	.24	.24	5
	3-10	20-35	1.30-1.60	0.6-2	0.14-0.20	3.0-5.9	4.5-5.5	0.5-1.0	.28	.28	
	10-21	30-45	1.30-1.60	0.6-2	0.14-0.20	3.0-5.9	4.5-5.5	0.0-0.5	.24	.24	
	21-60	35-55	1.30-1.60	0.6-2	0.14-0.20	3.0-5.9	4.5-5.5	0.0-0.5	.24	.24	
Urban land--------	---	---	---	---	---	---	---	---	---	---	--
HrF:											
Hector------------	0-4	5-15	1.30-1.60	2-6	0.05-0.10	0.0-2.9	5.1-5.5	0.5-2.0	.15	.28	1
	4-11	5-15	1.30-1.60	2-6	0.08-0.15	0.0-2.9	5.1-5.5	0.2-1.0	.17	.28	
	11-19	5-20	1.30-1.60	2-6	0.04-0.11	0.0-2.9	5.1-5.5	0.0-0.5	.17	.28	
	19-60	---	---	---	0.00-0.01	---	---	---	---	---	
Townley-----------	0-5	10-27	1.25-1.60	0.6-2	0.12-0.14	0.0-2.9	4.5-5.5	0.5-2.0	.37	.37	3
	5-16	27-45	1.30-1.60	0.06-0.2	0.12-0.18	3.0-5.9	4.5-5.5	0.5-1.0	.28	.32	
	16-27	35-60	1.30-1.60	0.06-0.2	0.10-0.16	3.0-5.9	4.5-5.5	0.0-0.5	.28	.32	
	27-60	---	---	---	0.00-0.00	---	---	---	---	---	
Rock outcrop------	0-60	---	---	---	---	---	---	---	---	---	--

Physical and Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Soil reaction	Organic matter	Erosion factors Kw	Kf	T
	In	Pct	g/cc	In/hr	In/in	Pct	pH	Pct			
HsB:											
Holston-----------	0-7	10-20	1.35-1.50	0.6-2	0.15-0.20	0.0-2.9	4.5-6.0	0.5-2.0	.28	.28	5
	7-26	20-35	1.40-1.55	0.6-2	0.13-0.20	0.0-2.9	4.5-6.0	0.0-0.5	.32	.32	
	26-60	23-40	1.40-1.60	0.6-2	0.10-0.18	0.0-2.9	4.5-6.0	0.0-0.5	.32	.32	
HsD:											
Holston-----------	0-7	10-20	1.35-1.50	0.6-2	0.15-0.20	0.0-2.9	4.5-6.0	0.5-2.0	.28	.28	5
	7-26	20-35	1.40-1.55	0.6-2	0.13-0.20	0.0-2.9	4.5-6.0	0.0-0.5	.32	.32	
	26-60	23-40	1.40-1.60	0.6-2	0.10-0.18	0.0-2.9	4.5-6.0	0.0-0.5	.32	.32	
JfF:											
Jefferson---------	0-5	5-20	1.30-1.50	2-6	0.07-0.14	0.0-2.9	5.1-5.5	0.5-5.0	.17	.24	5
	5-10	10-25	1.30-1.65	2-6	0.10-0.16	0.0-2.9	5.1-5.5	0.2-2.0	.28	.32	
	10-40	15-30	1.30-1.65	2-6	0.08-0.14	0.0-2.9	5.1-5.5	0.0-0.5	.17	.24	
	40-60	10-20	1.30-1.65	2-6	0.08-0.14	0.0-2.9	5.1-5.5	0.0-0.5	.17	.24	
JfG:											
Jefferson---------	0-5	5-20	1.30-1.50	2-6	0.07-0.14	0.0-2.9	5.1-5.5	0.5-5.0	.17	.24	5
	5-10	10-25	1.30-1.65	2-6	0.10-0.16	0.0-2.9	5.1-5.5	0.2-2.0	.28	.32	
	10-40	15-30	1.30-1.65	2-6	0.08-0.14	0.0-2.9	5.1-5.5	0.0-0.5	.17	.24	
	40-60	10-20	1.30-1.65	2-6	0.08-0.14	0.0-2.9	5.1-5.5	0.0-0.5	.17	.24	
JsE:											
Junaluska---------	0-5	10-25	1.25-1.50	2-6	0.12-0.20	0.0-2.9	4.5-5.0	1.0-5.0	.28	.28	3
	5-16	25-35	1.30-1.65	0.6-2	0.12-0.18	0.0-2.9	4.5-5.0	0.5-1.0	.15	.24	
	16-29	25-35	1.35-1.65	0.6-2	0.10-0.15	0.0-2.9	4.5-5.0	0.0-0.5	.15	.24	
	29-60	---	---	---	0.00-0.01	---	---	---	---	---	
JsF:											
Junaluska---------	0-5	10-25	1.25-1.50	2-6	0.12-0.20	0.0-2.9	4.5-5.0	1.0-5.0	.28	.28	3
	5-16	25-35	1.30-1.65	0.6-2	0.12-0.18	0.0-2.9	4.5-5.0	0.5-1.0	.15	.24	
	16-29	25-35	1.35-1.65	0.6-2	0.10-0.15	0.0-2.9	4.5-5.0	0.0-0.5	.15	.24	
	29-60	---	---	---	0.00-0.01	---	---	---	---	---	
JsG:											
Junaluska---------	0-5	10-25	1.25-1.50	2-6	0.12-0.20	0.0-2.9	4.5-5.0	1.0-5.0	.28	.28	3
	5-16	25-35	1.30-1.65	0.6-2	0.12-0.18	0.0-2.9	4.5-5.0	0.5-1.0	.15	.24	
	16-29	25-35	1.35-1.65	0.6-2	0.10-0.15	0.0-2.9	4.5-5.0	0.0-0.5	.15	.24	
	29-60	---	---	---	0.00-0.01	---	---	---	---	---	
JtE:											
Junaluska---------	0-5	10-25	1.25-1.50	2-6	0.12-0.20	0.0-2.9	4.5-5.0	1.0-5.0	.28	.28	3
	5-16	25-35	1.30-1.65	0.6-2	0.12-0.18	0.0-2.9	4.5-5.0	0.5-1.0	.15	.24	
	16-29	25-35	1.35-1.65	0.6-2	0.10-0.15	0.0-2.9	4.5-5.0	0.0-0.5	.15	.24	
	29-60	---	---	---	0.00-0.01	---	---	---	---	---	
Tsali-------------	0-4	7-20	1.35-1.60	2-6	0.10-0.15	0.0-2.9	4.5-5.5	1.0-5.0	.15	.28	2
	4-14	15-35	1.30-1.50	0.6-2	0.12-0.18	0.0-2.9	4.5-5.5	0.0-0.5	.15	.28	
	14-60	---	---	---	0.00-0.01	---	---	---	---	---	
JtF:											
Junaluska---------	0-5	10-25	1.25-1.50	2-6	0.12-0.20	0.0-2.9	4.5-5.0	1.0-5.0	.28	.28	3
	5-16	25-35	1.30-1.65	0.6-2	0.12-0.18	0.0-2.9	4.5-5.0	0.5-1.0	.15	.24	
	16-29	25-35	1.35-1.65	0.6-2	0.10-0.15	0.0-2.9	4.5-5.0	0.0-0.5	.15	.24	
	29-60	---	---	---	0.00-0.01	---	---	---	---	---	
Tsali-------------	0-4	7-20	1.35-1.60	2-6	0.10-0.15	0.0-2.9	4.5-5.5	1.0-5.0	.15	.28	2
	4-14	15-35	1.30-1.50	0.6-2	0.12-0.18	0.0-2.9	4.5-5.5	0.0-0.5	.15	.28	
	14-60	---	---	---	0.00-0.01	---	---	---	---	---	

Physical and Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Soil reaction	Organic matter	Erosion factors		
									Kw	Kf	T
	In	Pct	g/cc	In/hr	In/in	Pct	pH	Pct			
KtA:											
Ketona------------	0-7	18-27	1.20-1.55	0.6-2	0.14-0.20	3.0-5.9	6.1-8.4	1.0-3.0	.32	.32	3
	7-22	35-60	1.20-1.35	0.06-0.2	0.12-0.18	6.0-9.0	6.1-8.4	0.2-1.0	.32	.32	
	22-64	40-60	1.30-1.70	0.06-0.2	0.14-0.17	6.0-9.0	6.1-8.4	0.0-0.5	.32	.32	
LyE:											
Lily--------------	0-5	5-15	1.20-1.40	2-6	0.09-0.16	0.0-2.9	4.5-5.5	0.5-2.0	.28	.28	2
	5-10	10-25	1.20-1.40	2-6	0.12-0.18	0.0-2.9	4.5-5.5	0.2-0.8	.28	.28	
	10-32	20-30	1.25-1.40	2-6	0.10-0.13	0.0-2.9	4.5-5.5	0.0-0.5	.24	.24	
	32-39	5-15	1.35-1.60	2-6	0.05-0.12	0.0-2.9	4.5-5.5	0.0-0.5	.24	.24	
	39-60	---	---	---	0.00-0.01	---	---	---	---	---	
MnC:											
Minvale-----------	0-5	10-20	1.20-1.40	2-6	0.14-0.18	0.0-2.9	4.5-6.0	0.5-2.0	.28	.37	5
	5-12	10-30	1.20-1.40	2-6	0.12-0.18	0.0-2.9	4.5-6.0	0.5-1.0	.28	.32	
	12-40	27-40	1.30-1.55	0.6-2	0.11-0.17	0.0-2.9	4.5-5.5	0.0-0.5	.28	.32	
	40-60	30-50	1.30-1.55	0.6-2	0.10-0.16	0.0-2.9	4.5-5.5	0.0-0.5	.28	.32	
Urban land--------	---	---	---	---	---	---	---	---	---	---	--
MoF:											
Montevallo--------	0-5	7-27	1.35-1.55	0.6-2	0.04-0.12	0.0-2.9	4.5-5.5	0.5-3.0	.20	.32	2
	5-10	15-35	1.45-1.60	0.6-2	0.02-0.12	0.0-2.9	4.5-5.5	0.0-1.0	.32	.32	
	10-60	---	---	---	0.00-0.01	---	---	---	---	---	
MtD:											
Montevallo--------	0-5	7-27	1.35-1.55	0.6-2	0.04-0.12	0.0-2.9	4.5-5.5	0.5-3.0	.20	.32	2
	5-10	15-35	1.45-1.60	0.6-2	0.02-0.12	0.0-2.9	4.5-5.5	0.0-1.0	.32	.32	
	10-60	---	---	---	0.00-0.01	---	---	---	---	---	
Townley-----------	0-5	10-27	1.25-1.60	0.6-2	0.12-0.14	0.0-2.9	4.5-5.5	0.5-2.0	.37	.37	3
	5-16	27-45	1.30-1.60	0.06-0.2	0.12-0.18	3.0-5.9	4.5-5.5	0.5-1.0	.28	.32	
	16-27	35-60	1.30-1.60	0.06-0.2	0.10-0.16	3.0-5.9	4.5-5.5	0.0-0.5	.28	.32	
	27-60	---	---	---	0.00-0.00	---	---	---	---	---	
MtE:											
Montevallo--------	0-5	7-27	1.35-1.55	0.6-2	0.04-0.12	0.0-2.9	4.5-5.5	0.5-3.0	.20	.32	2
	5-10	15-35	1.45-1.60	0.6-2	0.02-0.12	0.0-2.9	4.5-5.5	0.0-1.0	.32	.32	
	10-60	---	---	---	0.00-0.01	---	---	---	---	---	
Townley-----------	0-5	10-27	1.25-1.60	0.6-2	0.12-0.14	0.0-2.9	4.5-5.5	0.5-2.0	.37	.37	3
	5-16	27-45	1.30-1.60	0.06-0.2	0.12-0.18	3.0-5.9	4.5-5.5	0.5-1.0	.28	.32	
	16-27	35-60	1.30-1.60	0.06-0.2	0.10-0.16	3.0-5.9	4.5-5.5	0.0-0.5	.28	.32	
	27-60	---	---	---	0.00-0.00	---	---	---	---	---	
MuE:											
Montevallo--------	0-5	7-27	1.35-1.55	0.6-2	0.04-0.12	0.0-2.9	4.5-5.5	0.5-3.0	.20	.32	2
	5-10	15-35	1.45-1.60	0.6-2	0.02-0.12	0.0-2.9	4.5-5.5	0.0-1.0	.32	.32	
	10-60	---	---	---	0.00-0.01	---	---	---	---	---	
Urban land--------	---	---	---	---	---	---	---	---	---	---	--
NaD:											
Nauvoo------------	0-5	5-20	1.30-1.60	2-6	0.13-0.17	0.0-2.9	4.5-5.0	0.5-2.0	.28	.28	4
	5-12	5-20	1.30-1.60	2-6	0.13-0.17	0.0-2.9	4.5-5.0	0.5-1.0	.28	.28	
	12-29	10-35	1.30-1.60	0.6-2	0.14-0.20	0.0-2.9	4.5-5.0	0.2-0.8	.32	.32	
	29-56	10-30	1.30-1.60	0.6-2	0.11-0.17	0.0-2.9	4.5-5.0	0.0-0.5	.32	.32	
	56-60	---	---	---	0.00-0.01	---	---	---	---	---	

Physical and Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Soil reaction	Organic matter	Erosion factors Kw	Kf	T
	In	Pct	g/cc	In/hr	In/in	Pct	pH	Pct			
NaE:											
Nauvoo------------	0-5	5-20	1.30-1.60	2-6	0.13-0.17	0.0-2.9	4.5-5.0	0.5-2.0	.28	.28	4
	5-12	5-20	1.30-1.60	2-6	0.13-0.17	0.0-2.9	4.5-5.0	0.5-1.0	.28	.28	
	12-29	10-35	1.30-1.60	0.6-2	0.14-0.20	0.0-2.9	4.5-5.0	0.2-0.8	.32	.32	
	29-56	10-30	1.30-1.60	0.6-2	0.11-0.17	0.0-2.9	4.5-5.0	0.0-0.5	.32	.32	
	56-60	---	---	---	0.00-0.01	---	---	---	---	---	
NeB:											
Nella-------------	0-5	5-15	1.30-1.45	2-6	0.08-0.15	0.0-2.9	4.5-5.5	0.5-3.0	.15	.20	5
	5-10	5-15	1.30-1.45	2-6	0.08-0.15	0.0-2.9	4.5-5.5	0.5-2.0	.15	.20	
	10-13	5-20	1.30-1.45	0.6-2	0.08-0.15	0.0-2.9	4.5-5.5	0.5-2.0	.15	.20	
	13-38	10-30	1.35-1.55	0.6-2	0.07-0.14	0.0-2.9	4.5-5.5	0.0-0.5	.15	.20	
	38-65	20-45	1.35-1.55	0.6-2	0.10-0.13	0.0-2.9	4.5-5.5	0.0-0.5	.15	.20	
NeD:											
Nella-------------	0-5	5-15	1.30-1.45	2-6	0.08-0.15	0.0-2.9	4.5-5.5	0.5-3.0	.15	.20	5
	5-10	5-15	1.30-1.45	2-6	0.08-0.15	0.0-2.9	4.5-5.5	0.5-2.0	.15	.20	
	10-13	5-20	1.30-1.45	0.6-2	0.08-0.15	0.0-2.9	4.5-5.5	0.5-2.0	.15	.20	
	13-38	10-30	1.35-1.55	0.6-2	0.07-0.14	0.0-2.9	4.5-5.5	0.0-0.5	.15	.20	
	38-65	20-45	1.35-1.55	0.6-2	0.10-0.13	0.0-2.9	4.5-5.5	0.0-0.5	.15	.20	
NeE:											
Nella-------------	0-5	5-15	1.30-1.45	2-6	0.08-0.15	0.0-2.9	4.5-5.5	0.5-3.0	.15	.20	5
	5-10	5-15	1.30-1.45	2-6	0.08-0.15	0.0-2.9	4.5-5.5	0.5-2.0	.15	.20	
	10-13	5-20	1.30-1.45	0.6-2	0.08-0.15	0.0-2.9	4.5-5.5	0.5-2.0	.15	.20	
	13-38	10-30	1.35-1.55	0.6-2	0.07-0.14	0.0-2.9	4.5-5.5	0.0-0.5	.15	.20	
	38-65	20-45	1.35-1.55	0.6-2	0.10-0.13	0.0-2.9	4.5-5.5	0.0-0.5	.15	.20	
NeF:											
Nella-------------	0-5	5-15	1.30-1.45	2-6	0.08-0.15	0.0-2.9	4.5-5.5	0.5-3.0	.15	.20	5
	5-10	5-15	1.30-1.45	2-6	0.08-0.15	0.0-2.9	4.5-5.5	0.5-2.0	.15	.20	
	10-13	5-20	1.30-1.45	0.6-2	0.08-0.15	0.0-2.9	4.5-5.5	0.5-2.0	.15	.20	
	13-38	10-30	1.35-1.55	0.6-2	0.07-0.14	0.0-2.9	4.5-5.5	0.0-0.5	.15	.20	
	38-65	20-45	1.35-1.55	0.6-2	0.10-0.13	0.0-2.9	4.5-5.5	0.0-0.5	.15	.20	
NtF:											
Nella-------------	0-5	5-15	1.30-1.45	2-6	0.08-0.15	0.0-2.9	4.5-5.5	0.5-3.0	.15	.20	5
	5-10	5-15	1.30-1.45	2-6	0.08-0.15	0.0-2.9	4.5-5.5	0.5-2.0	.15	.20	
	10-13	5-20	1.30-1.45	0.6-2	0.08-0.15	0.0-2.9	4.5-5.5	0.5-2.0	.15	.20	
	13-38	10-30	1.35-1.55	0.6-2	0.07-0.14	0.0-2.9	4.5-5.5	0.0-0.5	.15	.20	
	38-65	20-45	1.35-1.55	0.6-2	0.10-0.13	0.0-2.9	4.5-5.5	0.0-0.5	.15	.20	
Hector------------	0-4	5-15	1.30-1.60	2-6	0.05-0.10	0.0-2.9	5.1-5.5	0.5-2.0	.15	.28	1
	4-11	5-15	1.30-1.60	2-6	0.08-0.15	0.0-2.9	5.1-5.5	0.2-1.0	.17	.28	
	11-19	5-20	1.30-1.60	2-6	0.04-0.11	0.0-2.9	5.1-5.5	0.0-0.5	.17	.28	
	19-60	---	---	---	0.00-0.01	---	---	---	---	---	
Townley-----------	0-5	10-27	1.25-1.60	0.6-2	0.12-0.14	0.0-2.9	4.5-5.5	0.5-2.0	.37	.37	3
	5-16	27-45	1.30-1.60	0.06-0.2	0.12-0.18	3.0-5.9	4.5-5.5	0.5-1.0	.28	.32	
	16-27	35-60	1.30-1.60	0.06-0.2	0.10-0.16	3.0-5.9	4.5-5.5	0.0-0.5	.28	.32	
	27-60	---	---	---	0.00-0.00	---	---	---	---	---	
PaE:											
Panama------------	0-5	5-15	1.30-1.60	0.6-2	0.06-0.14	0.0-2.9	4.5-6.5	0.5-1.0	.17	.24	5
	5-29	10-20	1.30-1.70	0.6-2	0.04-0.12	0.0-2.9	4.5-6.5	0.2-0.8	.24	.32	
	29-55	20-30	1.45-1.70	0.6-2	0.03-0.18	0.0-2.9	4.5-6.5	0.0-0.5	.24	.32	
	55-80	30-40	1.35-1.65	0.2-0.6	0.13-0.16	3.0-5.9	4.5-6.5	0.0-0.5	.20	.32	

Physical and Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Soil reaction	Organic matter	Erosion factors		
									Kw	Kf	T
	In	Pct	g/cc	In/hr	In/in	Pct	pH	Pct			
PaF:											
Panama------------	0-5	5-15	1.30-1.60	0.6-2	0.06-0.14	0.0-2.9	4.5-6.5	0.5-1.0	.17	.24	5
	5-29	10-20	1.30-1.70	0.6-2	0.04-0.12	0.0-2.9	4.5-6.5	0.2-0.8	.24	.32	
	29-55	20-30	1.45-1.70	0.6-2	0.03-0.18	0.0-2.9	4.5-6.5	0.0-0.5	.24	.32	
	55-80	30-40	1.35-1.65	0.2-0.6	0.13-0.16	3.0-5.9	4.5-6.5	0.0-0.5	.20	.32	
PcD:											
Pigeonroost-------	0-6	7-15	1.35-1.60	2-6	0.14-0.20	0.0-2.9	4.5-5.5	1.0-5.0	.24	.24	3
	6-12	5-20	1.30-1.50	0.6-2	0.12-0.18	0.0-2.9	4.5-5.5	0.2-0.8	.28	.28	
	12-34	20-35	1.30-1.50	0.6-2	0.14-0.20	0.0-2.9	4.5-5.5	0.0-0.5	.24	.24	
	34-60	---	---	---	0.00-0.01	---	---	---	---	---	
Cheoah------------	0-12	7-18	1.35-1.60	2-6	0.15-0.24	0.0-2.9	5.1-5.5	5.0-10	.28	.28	3
	12-32	5-18	1.35-1.60	2-6	0.14-0.22	0.0-2.9	5.1-5.5	0.5-3.0	.32	.32	
	32-54	5-18	1.35-1.60	2-6	0.11-0.17	0.0-2.9	5.1-5.5	0.0-0.5	.32	.32	
	54-59	5-18	1.35-1.60	2-6	0.09-0.15	0.0-2.9	5.1-5.5	0.0-0.5	.32	.32	
	59-65	---	---	---	0.00-0.01	---	---	---	---	---	
Qu:											
Pits, quarries----	---	---	---	---	---	---	---	---	---	---	--
Rk:											
Rock outcrop------	0-60	---	---	---	---	---	---	---	---	---	--
SaA:											
Sequatchie--------	0-15	10-25	1.50-1.65	0.6-2	0.12-0.18	0.0-2.9	4.5-5.5	1.0-3.0	.32	.32	5
	15-55	18-35	1.55-1.70	0.6-2	0.15-0.20	0.0-2.9	4.5-5.5	0.2-0.8	.24	.24	
	55-60	20-30	1.55-1.70	0.6-6	0.09-0.14	0.0-2.9	4.5-5.5	0.0-0.5	.24	.24	
SaB:											
Sequatchie--------	0-15	10-25	1.50-1.65	0.6-2	0.12-0.18	0.0-2.9	4.5-5.5	1.0-3.0	.32	.32	5
	15-55	18-35	1.55-1.70	0.6-2	0.15-0.20	0.0-2.9	4.5-5.5	0.2-0.8	.24	.24	
	55-60	20-30	1.55-1.70	0.6-6	0.09-0.14	0.0-2.9	4.5-5.5	0.0-0.5	.24	.24	
ScB:											
Shack-------------	0-6	5-15	1.25-1.50	0.6-2	0.10-0.18	0.0-2.9	4.5-5.5	1.0-2.0	.28	.37	3
	6-15	10-25	1.25-1.50	0.6-2	0.12-0.16	0.0-2.9	4.5-5.5	0.5-1.0	.28	.37	
	15-22	20-35	1.25-1.50	0.6-2	0.10-0.14	0.0-2.9	4.5-5.5	0.0-0.5	.28	.37	
	22-29	20-35	1.70-1.85	0.2-0.6	0.04-0.09	0.0-2.9	4.5-5.5	0.0-0.5	.24	.32	
	29-60	27-40	1.40-1.60	0.6-2	0.04-0.09	0.0-2.9	4.5-5.5	0.0-0.5	.28	.32	
Guthrie-----------	0-3	10-25	1.35-1.55	0.6-2	0.20-0.22	0.0-2.9	5.1-6.0	1.0-2.0	.43	.43	4
	3-7	10-25	1.40-1.60	0.6-2	0.18-0.20	0.0-2.9	5.1-6.0	0.5-1.0	.43	.43	
	7-25	27-35	1.60-1.75	0.2-0.6	0.03-0.05	0.0-2.9	5.1-6.0	0.0-0.5	.43	.43	
	25-60	18-35	1.60-1.75	0.06-0.2	0.03-0.05	0.0-2.9	5.1-6.0	0.0-0.5	.37	.43	
SdD:											
Shack-------------	0-6	5-15	1.25-1.50	0.6-2	0.10-0.18	0.0-2.9	4.5-5.5	1.0-2.0	.28	.37	3
	6-15	10-25	1.25-1.50	0.6-2	0.12-0.16	0.0-2.9	4.5-5.5	0.5-1.0	.28	.37	
	15-22	20-35	1.25-1.50	0.6-2	0.10-0.14	0.0-2.9	4.5-5.5	0.0-0.5	.28	.37	
	22-29	20-35	1.70-1.85	0.2-0.6	0.04-0.09	0.0-2.9	4.5-5.5	0.0-0.5	.24	.32	
	29-60	27-40	1.40-1.60	0.6-2	0.04-0.09	0.0-2.9	4.5-5.5	0.0-0.5	.28	.32	
Bodine------------	0-4	10-27	1.35-1.55	2-6	0.06-0.11	0.0-2.9	4.5-5.0	1.0-2.0	.28	.37	5
	4-16	10-27	1.35-1.55	2-6	0.05-0.10	0.0-2.9	4.5-5.0	0.5-1.5	.24	.32	
	16-60	20-35	1.40-1.60	2-6	0.05-0.10	0.0-2.9	4.5-5.0	0.0-1.0	.24	.32	
Minvale-----------	0-5	10-20	1.20-1.40	2-6	0.14-0.18	0.0-2.9	4.5-6.0	0.5-2.0	.28	.37	5
	5-12	10-30	1.20-1.40	2-6	0.12-0.18	0.0-2.9	4.5-6.0	0.5-1.0	.28	.32	
	12-40	27-40	1.30-1.55	0.6-2	0.11-0.17	0.0-2.9	4.5-5.5	0.0-0.5	.28	.32	
	40-60	30-50	1.30-1.55	0.6-2	0.10-0.16	0.0-2.9	4.5-5.5	0.0-0.5	.28	.32	

Physical and Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Soil reaction	Organic matter	Erosion factors Kw	Kf	T
	In	Pct	g/cc	In/hr	In/in	Pct	pH	Pct			
SdE:											
Shack	0-6	5-15	1.25-1.50	0.6-2	0.10-0.18	0.0-2.9	4.5-5.5	1.0-2.0	.28	.37	3
	6-15	10-25	1.25-1.50	0.6-2	0.12-0.16	0.0-2.9	4.5-5.5	0.5-1.0	.28	.37	
	15-22	20-35	1.25-1.50	0.6-2	0.10-0.14	0.0-2.9	4.5-5.5	0.0-0.5	.28	.37	
	22-29	20-35	1.70-1.85	0.2-0.6	0.04-0.09	0.0-2.9	4.5-5.5	0.0-0.5	.24	.32	
	29-60	27-40	1.40-1.60	0.6-2	0.04-0.09	0.0-2.9	4.5-5.5	0.0-0.5	.28	.32	
Bodine	0-4	10-27	1.35-1.55	2-6	0.06-0.11	0.0-2.9	4.5-5.0	1.0-2.0	.28	.37	5
	4-16	10-27	1.35-1.55	2-6	0.05-0.10	0.0-2.9	4.5-5.0	0.5-1.5	.24	.32	
	16-60	20-35	1.40-1.60	2-6	0.05-0.10	0.0-2.9	4.5-5.0	0.0-1.0	.24	.32	
Minvale	0-5	10-20	1.20-1.40	2-6	0.14-0.18	0.0-2.9	4.5-6.0	0.5-2.0	.28	.37	5
	5-12	10-30	1.20-1.40	2-6	0.12-0.18	0.0-2.9	4.5-6.0	0.5-1.0	.28	.32	
	12-40	27-40	1.30-1.55	0.6-2	0.11-0.17	0.0-2.9	4.5-5.5	0.0-0.5	.28	.32	
	40-60	30-50	1.30-1.55	0.6-2	0.10-0.16	0.0-2.9	4.5-5.5	0.0-0.5	.28	.32	
SeA:											
Shellbluff	0-19	5-15	1.20-1.45	0.6-2	0.15-0.20	0.0-2.9	4.5-5.5	0.5-3.0	.28	.28	5
	19-50	15-35	1.20-1.50	0.6-2	0.13-0.21	0.0-2.9	4.5-5.5	0.5-2.0	.28	.28	
	50-60	5-30	1.20-1.50	0.6-2	0.13-0.18	0.0-2.9	4.5-5.5	0.0-0.5	.28	.28	
Ketona	0-7	18-27	1.20-1.55	0.6-2	0.14-0.20	3.0-5.9	6.1-8.4	1.0-3.0	.32	.32	3
	7-22	35-60	1.20-1.35	0.06-0.2	0.12-0.18	6.0-9.0	6.1-8.4	0.2-1.0	.32	.32	
	22-64	40-60	1.30-1.70	0.06-0.2	0.14-0.17	6.0-9.0	6.1-8.4	0.0-0.5	.32	.32	
ShC:											
Shelocta	0-4	7-20	1.15-1.30	0.6-2	0.10-0.18	0.0-2.9	4.5-5.5	0.5-5.0	.28	.32	3
	4-45	14-34	1.40-1.60	0.6-2	0.08-0.16	0.0-2.9	4.5-5.5	0.5-2.0	.28	.32	
	45-60	5-20	1.40-1.60	0.6-6	0.10-0.15	0.0-2.9	4.5-5.5	0.0-0.2	.17	.28	
SpD:											
Sipsey	0-7	5-20	1.35-1.50	2-6	0.10-0.16	0.0-2.9	4.5-5.5	0.5-2.0	.24	.24	3
	7-16	10-25	1.35-1.50	6-20	0.05-0.12	0.0-2.9	4.5-5.5	0.5-1.0	.15	.15	
	16-34	20-35	1.40-1.60	0.6-2	0.14-0.18	0.0-2.9	4.5-5.5	0.0-0.5	.15	.15	
	34-60	---	---	---	0.00-0.01	---	---	---	---	---	
SpE:											
Sipsey	0-7	5-20	1.35-1.50	2-6	0.10-0.16	0.0-2.9	4.5-5.5	0.5-2.0	.24	.24	3
	7-16	10-25	1.35-1.50	6-20	0.05-0.12	0.0-2.9	4.5-5.5	0.5-1.0	.15	.15	
	16-34	20-35	1.40-1.60	0.6-2	0.14-0.18	0.0-2.9	4.5-5.5	0.0-0.5	.15	.15	
	34-60	---	---	---	0.00-0.01	---	---	---	---	---	
SuB:											
Subligna	0-4	5-15	1.40-1.60	0.6-6	0.07-0.15	0.0-2.9	4.5-5.5	0.5-2.0	.17	.32	3
	4-16	5-15	1.40-1.60	6-20	0.06-0.15	0.0-2.9	4.5-5.5	0.5-1.0	.17	.32	
	16-60	5-10	1.50-1.70	6-20	0.04-0.09	0.0-2.9	4.5-5.5	0.0-0.5	.17	.32	
SxA:											
Suches	0-6	5-15	1.30-1.50	0.6-2	0.11-0.18	0.0-2.9	4.5-6.0	2.0-4.0	.24	.24	5
	6-55	15-35	1.45-1.60	0.6-2	0.11-0.20	0.0-2.9	4.5-5.5	0.5-2.0	.28	.28	
	55-60	5-30	1.50-1.70	0.6-2	0.06-0.21	0.0-2.9	4.5-5.5	0.0-0.5	.28	.28	
TnB:											
Townley	0-5	10-27	1.25-1.60	0.6-2	0.12-0.14	0.0-2.9	4.5-5.5	0.5-2.0	.37	.37	3
	5-16	27-45	1.30-1.60	0.06-0.2	0.12-0.18	3.0-5.9	4.5-5.5	0.5-1.0	.28	.32	
	16-27	35-60	1.30-1.60	0.06-0.2	0.10-0.16	3.0-5.9	4.5-5.5	0.0-0.5	.28	.32	
	27-60	---	---	---	0.00-0.00	---	---	---	---	---	

Physical and Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Soil reaction	Organic matter	Erosion factors Kw	Kf	T
	In	Pct	g/cc	In/hr	In/in	Pct	pH	Pct			
TnD:											
Townley-----------	0-5	10-27	1.25-1.60	0.6-2	0.12-0.14	0.0-2.9	4.5-5.5	0.5-2.0	.37	.37	3
	5-16	27-45	1.30-1.60	0.06-0.2	0.12-0.18	3.0-5.9	4.5-5.5	0.5-1.0	.28	.32	
	16-27	35-60	1.30-1.60	0.06-0.2	0.10-0.16	3.0-5.9	4.5-5.5	0.0-0.5	.28	.32	
	27-60	---	---	---	0.00-0.00	---	---	---	---	---	
TnE:											
Townley-----------	0-5	10-27	1.25-1.60	0.6-2	0.12-0.14	0.0-2.9	4.5-5.5	0.5-2.0	.37	.37	3
	5-16	27-45	1.30-1.60	0.06-0.2	0.12-0.18	3.0-5.9	4.5-5.5	0.5-1.0	.28	.32	
	16-27	35-60	1.30-1.60	0.06-0.2	0.10-0.16	3.0-5.9	4.5-5.5	0.0-0.5	.28	.32	
	27-60	---	---	---	0.00-0.00	---	---	---	---	---	
TnF:											
Townley-----------	0-5	10-27	1.25-1.60	0.6-2	0.12-0.14	0.0-2.9	4.5-5.5	0.5-2.0	.37	.37	3
	5-16	27-45	1.30-1.60	0.06-0.2	0.12-0.18	3.0-5.9	4.5-5.5	0.5-1.0	.28	.32	
	16-27	35-60	1.30-1.60	0.06-0.2	0.10-0.16	3.0-5.9	4.5-5.5	0.0-0.5	.28	.32	
	27-60	---	---	---	0.00-0.00	---	---	---	---	---	
TrC:											
Townley-----------	0-5	10-27	1.25-1.60	0.6-2	0.12-0.14	0.0-2.9	4.5-5.5	0.5-2.0	.37	.37	3
	5-16	27-45	1.30-1.60	0.06-0.2	0.12-0.18	3.0-5.9	4.5-5.5	0.5-1.0	.28	.32	
	16-27	35-60	1.30-1.60	0.06-0.2	0.10-0.16	3.0-5.9	4.5-5.5	0.0-0.5	.28	.32	
	27-60	---	---	---	0.00-0.00	---	---	---	---	---	
Urban land--------	---	---	---	---	---	---	---	---	---	---	--
TsE:											
Tsali-------------	0-4	7-20	1.35-1.60	2-6	0.10-0.15	0.0-2.9	4.5-5.5	1.0-5.0	.15	.28	2
	4-14	15-35	1.30-1.50	0.6-2	0.12-0.18	0.0-2.9	4.5-5.5	0.0-0.5	.15	.28	
	14-60	---	---	---	0.00-0.01	---	---	---	---	---	
TsF:											
Tsali-------------	0-4	7-20	1.35-1.60	2-6	0.10-0.15	0.0-2.9	4.5-5.5	1.0-5.0	.15	.28	2
	4-14	15-35	1.30-1.50	0.6-2	0.12-0.18	0.0-2.9	4.5-5.5	0.0-0.5	.15	.28	
	14-60	---	---	---	0.00-0.01	---	---	---	---	---	
TsG:											
Tsali-------------	0-4	7-20	1.35-1.60	2-6	0.10-0.15	0.0-2.9	4.5-5.5	1.0-5.0	.15	.28	2
	4-14	15-35	1.30-1.50	0.6-2	0.12-0.18	0.0-2.9	4.5-5.5	0.0-0.5	.15	.28	
	14-60	---	---	---	0.00-0.01	---	---	---	---	---	
Uc:											
Ultic Udarents, channery---------	---	---	---	---	---	---	---	---	---	---	--
Ug:											
Ultic Udarents, gravelly---------	---	---	---	---	---	---	---	---	---	---	--
UrC:											
Urban land--------	---	---	---	---	---	---	---	---	---	---	--
WaA:											
Wax---------------	0-9	10-20	1.35-1.50	2-6	0.10-0.14	0.0-2.9	4.5-5.5	1.0-3.0	.32	.32	3
	9-22	10-25	1.35-1.50	0.6-2	0.14-0.18	0.0-2.9	4.5-5.5	0.5-1.0	.37	.37	
	22-29	15-35	1.40-1.65	0.6-2	0.14-0.18	0.0-2.9	4.5-5.5	0.5-1.0	.37	.37	
	29-36	15-35	1.75-1.85	0.06-0.2	0.02-0.05	0.0-2.9	4.5-5.5	0.0-0.5	.15	.32	
	36-60	27-35	1.75-1.85	0.06-0.2	0.02-0.05	0.0-2.9	4.5-5.5	0.0-0.5	.15	.32	

Physical and Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Soil reaction	Organic matter	Erosion factors Kw	Kf	T
	In	Pct	g/cc	In/hr	In/in	Pct	pH	Pct			
Guthrie-----------	0-3	10-25	1.35-1.55	0.6-2	0.20-0.22	0.0-2.9	5.1-6.0	1.0-2.0	.43	.43	4
	3-7	10-25	1.40-1.60	0.6-2	0.18-0.20	0.0-2.9	5.1-6.0	0.5-1.0	.43	.43	
	7-25	27-35	1.60-1.75	0.2-0.6	0.03-0.05	0.0-2.9	5.1-6.0	0.0-0.5	.43	.43	
	25-60	18-35	1.60-1.75	0.06-0.2	0.03-0.05	0.0-2.9	5.1-6.0	0.0-0.5	.37	.43	
WaB:											
Wax---------------	0-9	10-20	1.35-1.50	2-6	0.10-0.14	0.0-2.9	4.5-5.5	1.0-3.0	.32	.32	3
	9-22	10-25	1.35-1.50	0.6-2	0.14-0.18	0.0-2.9	4.5-5.5	0.5-1.0	.37	.37	
	22-29	15-35	1.40-1.65	0.6-2	0.14-0.18	0.0-2.9	4.5-5.5	0.5-1.0	.37	.37	
	29-36	15-35	1.75-1.85	0.06-0.2	0.02-0.05	0.0-2.9	4.5-5.5	0.0-0.5	.15	.32	
	36-60	27-35	1.75-1.85	0.06-0.2	0.02-0.05	0.0-2.9	4.5-5.5	0.0-0.5	.15	.32	
WnB:											
Waynesboro--------	0-6	5-20	1.40-1.60	0.6-2	0.15-0.21	0.0-2.9	5.1-6.0	1.0-2.0	.28	.28	5
	6-36	20-45	1.40-1.55	0.6-2	0.14-0.20	0.0-2.9	4.5-5.5	0.5-1.0	.28	.28	
	36-60	35-60	1.40-1.55	0.6-2	0.13-0.18	0.0-2.9	4.5-5.5	0.0-0.5	.28	.28	
WnD:											
Waynesboro--------	0-6	5-20	1.40-1.60	0.6-2	0.15-0.21	0.0-2.9	5.1-6.0	1.0-2.0	.28	.28	5
	6-36	20-45	1.40-1.55	0.6-2	0.14-0.20	0.0-2.9	4.5-5.5	0.5-1.0	.28	.28	
	36-60	35-60	1.40-1.55	0.6-2	0.13-0.18	0.0-2.9	4.5-5.5	0.0-0.5	.28	.28	
WsC:											
Waynesboro--------	0-6	5-20	1.40-1.60	0.6-2	0.15-0.21	0.0-2.9	5.1-6.0	1.0-2.0	.28	.28	5
	6-36	20-45	1.40-1.55	0.6-2	0.14-0.20	0.0-2.9	4.5-5.5	0.5-1.0	.28	.28	
	36-60	35-60	1.40-1.55	0.6-2	0.13-0.18	0.0-2.9	4.5-5.5	0.0-0.5	.28	.28	
Urban land--------	---	---	---	---	---	---	---	---	---	---	--
WtA:											
Whitwell----------	0-4	10-25	1.30-1.55	0.6-2	0.15-0.20	0.0-2.9	5.1-6.0	1.0-3.0	.32	.24	5
	4-6	18-32	1.35-1.55	0.6-2	0.14-0.20	0.0-2.9	5.1-6.0	0.5-1.0	.32	.32	
	6-24	20-40	1.40-1.55	0.6-2	0.14-0.19	0.0-2.9	5.1-6.0	0.5-1.0	.32	.32	
	24-46	20-40	1.40-1.70	0.6-2	0.14-0.19	0.0-2.9	5.1-6.0	0.0-0.5	.32	.32	
	46-60	10-35	1.40-1.70	0.6-2	0.09-0.16	0.0-2.9	5.1-6.0	0.0-0.5	.28	.28	
Guthrie-----------	0-3	10-25	1.35-1.55	0.6-2	0.20-0.22	0.0-2.9	5.1-6.0	1.0-2.0	.43	.43	4
	3-7	10-25	1.40-1.60	0.6-2	0.18-0.20	0.0-2.9	5.1-6.0	0.5-1.0	.43	.43	
	7-25	27-35	1.60-1.75	0.2-0.6	0.03-0.05	0.0-2.9	5.1-6.0	0.0-0.5	.43	.43	
	25-60	18-35	1.60-1.75	0.06-0.2	0.03-0.05	0.0-2.9	5.1-6.0	0.0-0.5	.37	.43	
Ketona------------	0-7	18-27	1.20-1.55	0.6-2	0.14-0.20	3.0-5.9	6.1-8.4	1.0-3.0	.32	.32	3
	7-22	35-60	1.20-1.35	0.06-0.2	0.12-0.18	6.0-9.0	6.1-8.4	0.2-1.0	.32	.32	
	22-64	40-60	1.30-1.70	0.06-0.2	0.14-0.17	6.0-9.0	6.1-8.4	0.0-0.5	.32	.32	
WtB:											
Whitwell----------	0-4	10-25	1.30-1.55	0.6-2	0.15-0.20	0.0-2.9	5.1-6.0	1.0-3.0	.32	.24	5
	4-6	18-32	1.35-1.55	0.6-2	0.14-0.20	0.0-2.9	5.1-6.0	0.5-1.0	.32	.32	
	6-24	20-40	1.40-1.55	0.6-2	0.14-0.19	0.0-2.9	5.1-6.0	0.5-1.0	.32	.32	
	24-46	20-40	1.40-1.70	0.6-2	0.14-0.19	0.0-2.9	5.1-6.0	0.0-0.5	.32	.32	
	46-60	10-35	1.40-1.70	0.6-2	0.09-0.16	0.0-2.9	5.1-6.0	0.0-0.5	.28	.28	

Physical and Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea-bility (Ksat)	Available water capacity	Linear extensi-bility	Soil reaction	Organic matter	Erosion factors		
									Kw	Kf	T
	In	Pct	g/cc	In/hr	In/in	Pct	pH	Pct			
WuA:											
Whitwell----------	0-4	10-25	1.30-1.55	0.6-2	0.15-0.20	0.0-2.9	5.1-6.0	1.0-3.0	.32	.24	5
	4-6	18-32	1.35-1.55	0.6-2	0.14-0.20	0.0-2.9	5.1-6.0	0.5-1.0	.32	.32	
	6-24	20-40	1.40-1.55	0.6-2	0.14-0.19	0.0-2.9	5.1-6.0	0.5-1.0	.32	.32	
	24-46	20-40	1.40-1.70	0.6-2	0.14-0.19	0.0-2.9	5.1-6.0	0.0-0.5	.32	.32	
	46-60	10-35	1.40-1.70	0.6-2	0.09-0.16	0.0-2.9	5.1-6.0	0.0-0.5	.28	.28	
Urban land--------	---	---	---	---	---	---	---	---	---	---	--
Ketona------------	0-7	18-27	1.20-1.55	0.6-2	0.14-0.20	3.0-5.9	6.1-8.4	1.0-3.0	.32	.32	3
	7-22	35-60	1.20-1.35	0.06-0.2	0.12-0.18	6.0-9.0	6.1-8.4	0.2-1.0	.32	.32	
	22-64	40-60	1.30-1.70	0.06-0.2	0.14-0.17	6.0-9.0	6.1-8.4	0.0-0.5	.32	.32	

Water Features

(Depths of layers are in feet. See text for definitions of terms used in this table. Absence of an entry indicates that the feature is not a concern or that data were not estimated.)

Map symbol and soil name	Hydro-logic group	Months	Water table: Upper limit	Water table: Kind	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft		Ft				
AbB:									
Albertville-----	C	Jan-May	2.5-3.5	Apparent	---	---	None	---	None
		Jun-Dec	---	---	---	---	None	---	None
AbD:									
Albertville-----	C	Jan-May	2.5-3.5	Apparent	---	---	None	---	None
		Jun-Dec	---	---	---	---	None	---	None
AnB:									
Allen-----------	B	Jan-Dec	>6.0	---	---	---	None	---	None
AnD:									
Allen-----------	B	Jan-Dec	>6.0	---	---	---	None	---	None
AnE:									
Allen-----------	B	Jan-Dec	>6.0	---	---	---	None	---	None
ArC:									
Allen-----------	B	Jan-Dec	>6.0	---	---	---	None	---	None
Urban land------	---	Jan-Dec	>6.0	---	---	---	None	---	None
ArE:									
Allen-----------	B	Jan-Dec	>6.0	---	---	---	None	---	None
Urban land------	---	Jan-Dec	>6.0	---	---	---	None	---	None
AuA:									
Arkabutla-------	C	Jan-May	1.0-1.5	Apparent	---	---	None	Brief	Occasional
		Jun-Dec	---	---	---	---	None	---	---
Ketona----------	D	Jan-May	0.5-1.0	Apparent	0.5-1.0	Brief	Frequent	Brief	Occasional
		Jun-Dec	---	---	---	---	---	---	---
BoD:									
Bodine----------	B	Jan-Dec	>6.0	---	---	---	None	---	None
BoE:									
Bodine----------	B	Jan-Dec	>6.0	---	---	---	None	---	None
BoF:									
Bodine----------	B	Jan-Dec	>6.0	---	---	---	None	---	None
CaA:									
Capshaw---------	C	Jan-May	2.0-3.5	Apparent	---	---	None	---	None
		Jun-Dec	---	---	---	---	None	---	None
Ketona----------	D	Jan-May	0.5-1.0	Apparent	0.5-1.0	Brief	Frequent	---	None
		Jun-Dec	---	---	---	---	---	---	None
Guthrie---------	D	Jan-May	0.5-1.0	Apparent	0.5-1.0	Brief	Occasional	---	None
		Jun-Dec	---	---	---	---	---	---	None
CaB:									
Capshaw---------	C	Jan-May	2.0-3.5	Apparent	---	---	None	---	None
		Jun-Dec	---	---	---	---	None	---	None

Water Features—Continued

Map symbol and soil name	Hydro-logic group	Months	Water table: Upper limit	Water table: Kind	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft		Ft				
Ketona----------	D	Jan-May	0.5-1.0	Apparent	0.5-1.0	Brief	Frequent	---	None
		Jun-Dec	---	---	---	---	---	---	None
Guthrie---------	D	Jan-May	0.5-1.0	Apparent	0.5-1.0	Brief	Occasional	---	None
		Jun-Dec	---	---	---	---	---	---	None
CkE:									
Cataska---------	D	Jan-Dec	>6.0	---	---	---	None	---	None
CkF:									
Cataska---------	D	Jan-Dec	>6.0	---	---	---	None	---	None
CkG:									
Cataska---------	D	Jan-Dec	>6.0	---	---	---	None	---	None
CnA:									
Chenneby--------	C	Jan-May	1.5-2.5	Apparent	---	---	None	Brief	Occasional
		Jun-Dec	---	---	---	---	None	---	---
Ketona----------	D	Jan-May	0.5-1.0	Apparent	0.5-1.0	Brief	Frequent	Brief	Occasional
		Jun-Dec	---	---	---	---	---	---	---
CoA:									
Chenneby--------	C	Jan-May	1.5-2.5	Apparent	---	---	None	Brief	Occasional
		Jun-Dec	---	---	---	---	None	---	---
Ketona----------	D	Jan-May	0.5-1.0	Apparent	0.5-1.0	Brief	Frequent	Brief	Occasional
		Jun-Dec	---	---	---	---	---	---	---
CrE:									
Cheoah----------	B	Jan-Dec	>6.0	---	---	---	None	---	None
Edneytown-------	B	Jan-Dec	>6.0	---	---	---	None	---	None
CsC:									
Conasauga-------	C	Jan-May	1.5-2.5	Perched	---	---	None	---	None
		Jun-Dec	---	---	---	---	None	---	None
CuC:									
Conasauga-------	C	Jan-May	1.5-2.5	Perched	---	---	None	---	None
		Jun-Dec	---	---	---	---	None	---	None
Urban land------	---	Jan-Dec	>6.0	---	---	---	None	---	None
CvB:									
Craigsville-----	B	Jan-May	---	---	---	---	None	Very brief	Occasional
		Jun-Dec	---	---	---	---	None	---	---
CxB:									
Cunningham------	C	Jan-Dec	>6.0	---	---	---	None	---	None
CxD:									
Cunningham------	C	Jan-Dec	>6.0	---	---	---	None	---	None
CxE:									
Cunningham------	C	Jan-Dec	>6.0	---	---	---	None	---	None
CxF:									
Cunningham------	C	Jan-Dec	>6.0	---	---	---	None	---	None

Water Features—Continued

Map symbol and soil name	Hydro-logic group	Months	Water table: Upper limit	Water table: Kind	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft		Ft				
DeB:									
Dewey-----------	B	Jan-Dec	>6.0	---	---	---	None	---	None
DeD:									
Dewey-----------	B	Jan-Dec	>6.0	---	---	---	None	---	None
DoA:									
Docena----------	C	Jan-May	1.5-3.0	Apparent	---	---	None	Very brief	Occasional
		Jun-Dec	---	---	---	---	None	---	---
Ketona----------	D	Jan-May	0.5-1.0	Apparent	0.5-1.0	Brief	Frequent	Brief	Occasional
		Jun-Dec	---	---	---	---	---	---	---
DsB:									
Docena----------	C	Jan-May	1.5-3.0	Apparent	---	---	None	---	None
		Jun-Dec	---	---	---	---	None	---	None
Conasauga-------	C	Jan-May	1.5-2.5	Perched	---	---	None	---	None
		Jun-Dec	---	---	---	---	None	---	None
Ketona----------	D	Jan-May	0.5-1.0	Apparent	0.5-1.0	Brief	Frequent	---	None
		Jun-Dec	---	---	---	---	---	---	None
Du:									
Dumps-----------	---	Jan-Dec	>6.0	---	---	---	None	---	None
EdF:									
Edneytown-------	B	Jan-Dec	>6.0	---	---	---	None	---	None
EdG:									
Edneytown-------	B	Jan-Dec	>6.0	---	---	---	None	---	None
EnB:									
Enders----------	C	Jan-Dec	>6.0	---	---	---	None	---	None
EnD:									
Enders----------	C	Jan-Dec	>6.0	---	---	---	None	---	None
EuC:									
Enders----------	C	Jan-Dec	>6.0	---	---	---	None	---	None
Urban land------	---	Jan-Dec	>6.0	---	---	---	None	---	None
FtB:									
Fullerton-------	B	Jan-Dec	>6.0	---	---	---	None	---	None
FtD:									
Fullerton-------	B	Jan-Dec	>6.0	---	---	---	None	---	None
FtE:									
Fullerton-------	B	Jan-Dec	>6.0	---	---	---	None	---	None
FtF:									
Fullerton-------	B	Jan-Dec	>6.0	---	---	---	None	---	None
FuE:									
Fullerton-------	B	Jan-Dec	>6.0	---	---	---	None	---	None
Urban land------	---	Jan-Dec	>6.0	---	---	---	None	---	None

Water Features—Continued

Map symbol and soil name	Hydro-logic group	Months	Water table: Upper limit	Water table: Kind	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft		Ft				
GrA:									
Guthrie---------	D	Jan-May	0.5-1.0	Apparent	0.5-1.0	Brief	Occasional	Brief	Occasional
		Jun-Dec	---	---	---	---	---	---	---
HcB:									
Hanceville------	B	Jan-Dec	>6.0	---	---	---	None	---	None
HcD:									
Hanceville------	B	Jan-Dec	>6.0	---	---	---	None	---	None
HcE:									
Hanceville------	B	Jan-Dec	>6.0	---	---	---	None	---	None
HnC:									
Hanceville------	B	Jan-Dec	>6.0	---	---	---	None	---	None
Urban land------	---	Jan-Dec	>6.0	---	---	---	None	---	None
HrF:									
Hector----------	D	Jan-Dec	>6.0	---	---	---	None	---	None
Townley---------	C	Jan-Dec	>6.0	---	---	---	None	---	None
Rock outcrop----	---	Jan-Dec	>6.0	---	---	---	None	---	None
HsB:									
Holston---------	B	Jan-Dec	>6.0	---	---	---	None	---	None
HsD:									
Holston---------	B	Jan-Dec	>6.0	---	---	---	None	---	None
JfF:									
Jefferson-------	B	Jan-Dec	>6.0	---	---	---	None	---	None
JfG:									
Jefferson-------	B	Jan-Dec	>6.0	---	---	---	None	---	None
JsE:									
Junaluska-------	B	Jan-Dec	>6.0	---	---	---	None	---	None
JsF:									
Junaluska-------	B	Jan-Dec	>6.0	---	---	---	None	---	None
JsG:									
Junaluska-------	B	Jan-Dec	>6.0	---	---	---	None	---	None
JtE:									
Junaluska-------	B	Jan-Dec	>6.0	---	---	---	None	---	None
Tsali-----------	C	Jan-Dec	>6.0	---	---	---	None	---	None
JtF:									
Junaluska-------	B	Jan-Dec	>6.0	---	---	---	None	---	None
Tsali-----------	C	Jan-Dec	>6.0	---	---	---	None	---	None
KtA:									
Ketona----------	D	Jan-May	0.5-1.0	Apparent	0.5-1.0	Brief	Frequent	Brief	Occasional
		Jun-Dec	---	---	---	---	---	---	---

Water Features—Continued

Map symbol and soil name	Hydro-logic group	Months	Water table: Upper limit	Water table: Kind	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft		Ft				
LyE:									
Lily------------	B	Jan-Dec	>6.0	---	---	---	None	---	None
MnC:									
Minvale---------	B	Jan-Dec	>6.0	---	---	---	None	---	None
Urban land------	---	Jan-Dec	>6.0	---	---	---	None	---	None
MoF:									
Montevallo------	D	Jan-Dec	>6.0	---	---	---	None	---	None
MtD:									
Montevallo------	D	Jan-Dec	>6.0	---	---	---	None	---	None
Townley---------	C	Jan-Dec	>6.0	---	---	---	None	---	None
MtE:									
Montevallo------	D	Jan-Dec	>6.0	---	---	---	None	---	None
Townley---------	C	Jan-Dec	>6.0	---	---	---	None	---	None
MuE:									
Montevallo------	D	Jan-Dec	>6.0	---	---	---	None	---	None
Urban land------	---	Jan-Dec	>6.0	---	---	---	None	---	None
NaD:									
Nauvoo----------	B	Jan-Dec	>6.0	---	---	---	None	---	None
NaE:									
Nauvoo----------	B	Jan-Dec	>6.0	---	---	---	None	---	None
NeB:									
Nella-----------	B	Jan-Dec	>6.0	---	---	---	None	---	None
NeD:									
Nella-----------	B	Jan-Dec	>6.0	---	---	---	None	---	None
NeE:									
Nella-----------	B	Jan-Dec	>6.0	---	---	---	None	---	None
NeF:									
Nella-----------	B	Jan-Dec	>6.0	---	---	---	None	---	None
NtF:									
Nella-----------	B	Jan-Dec	>6.0	---	---	---	None	---	None
Hector----------	D	Jan-Dec	>6.0	---	---	---	None	---	None
Townley---------	C	Jan-Dec	>6.0	---	---	---	None	---	None
PaE:									
Panama----------	B	Jan-Dec	>6.0	---	---	---	None	---	None
PaF:									
Panama----------	B	Jan-Dec	>6.0	---	---	---	None	---	None
PcD:									
Pigeonroost-----	B	Jan-Dec	>6.0	---	---	---	None	---	None

Water Features—Continued

Map symbol and soil name	Hydro-logic group	Months	Water table: Upper limit	Water table: Kind	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft		Ft				
Cheoah----------	B	Jan-Dec	>6.0	---	---	---	None	---	None
Qu:									
Pits, quarries--	---	Jan-Dec	>6.0	---	---	---	None	---	None
Rk:									
Rock outcrop----	---	Jan-Dec	>6.0	---	---	---	None	---	None
SaA:									
Sequatchie------	B	Jan-May	---	---	---	---	None	Very brief	Occasional
		Jun-Dec	---	---	---	---	None	---	---
SaB:									
Sequatchie------	B	Jan-Dec	>6.0	---	---	---	None	---	None
ScB:									
Shack-----------	B	Jan-May	1.5-2.5	Perched	---	---	None	---	None
		Jun-Dec	---	---	---	---	None	---	None
Guthrie---------	D	Jan-May	0.5-1.0	Apparent	0.5-1.0	Brief	Occasional	---	None
		Jun-Dec	---	---	---	---	---	---	None
SdD:									
Shack-----------	B	Jan-May	1.5-2.5	Perched	---	---	None	---	None
		Jun-Dec	---	---	---	---	None	---	None
Bodine----------	B	Jan-Dec	>6.0	---	---	---	None	---	None
Minvale---------	B	Jan-Dec	>6.0	---	---	---	None	---	None
SdE:									
Shack-----------	B	Jan-May	1.5-2.5	Perched	---	---	None	---	None
		Jun-Dec	---	---	---	---	None	---	None
Bodine----------	B	Jan-Dec	>6.0	---	---	---	None	---	None
Minvale---------	B	Jan-Dec	>6.0	---	---	---	None	---	None
SeA:									
Shellbluff------	B	Jan-May	2.5-6.0	Apparent	---	---	None	Brief	Occasional
		Jun-Dec	---	---	---	---	None	---	---
Ketona----------	D	Jan-May	0.5-1.0	Apparent	0.5-1.0	Brief	Frequent	Brief	Occasional
		Jun-Dec	---	---	---	---	---	---	---
ShC:									
Shelocta--------	B	Jan-Dec	>6.0	---	---	---	None	---	None
SpD:									
Sipsey----------	B	Jan-Dec	>6.0	---	---	---	None	---	None
SpE:									
Sipsey----------	B	Jan-Dec	>6.0	---	---	---	None	---	None
SuB:									
Subligna--------	B	Jan-Apr	---	---	---	---	None	Very brief	Occasional
		May-Dec	---	---	---	---	None	---	---

Water Features—Continued

Map symbol and soil name	Hydro- logic group	Months	Water table: Upper limit	Water table: Kind	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft		Ft				
SxA:									
Suches----------	B	Jan-May	3.0-6.0	Apparent	---	---	None	Brief	Occasional
		Jun-Dec	---	---	---	---	None	---	---
TnB:									
Townley---------	C	Jan-Dec	>6.0	---	---	---	None	---	None
TnD:									
Townley---------	C	Jan-Dec	>6.0	---	---	---	None	---	None
TnE:									
Townley---------	C	Jan-Dec	>6.0	---	---	---	None	---	None
TnF:									
Townley---------	C	Jan-Dec	>6.0	---	---	---	None	---	None
TrC:									
Townley---------	C	Jan-Dec	>6.0	---	---	---	None	---	None
Urban land------	---	Jan-Dec	>6.0	---	---	---	None	---	None
TsE:									
Tsali-----------	C	Jan-Dec	>6.0	---	---	---	None	---	None
TsF:									
Tsali-----------	C	Jan-Dec	>6.0	---	---	---	None	---	None
TsG:									
Tsali-----------	C	Jan-Dec	>6.0	---	---	---	None	---	None
Uc:									
Ultic Udarents, channery-------	---	Jan-Dec	>6.0	---	---	---	None	---	None
Ug:									
Ultic Udarents, gravelly-------	---	Jan-Dec	>6.0	---	---	---	None	---	None
UrC:									
Urban land------	---	Jan-Dec	>6.0	---	---	---	None	---	None
WaA:									
Wax-------------	C	Jan-May	1.5-3.0	Perched	---	---	None	Brief	Occasional
		Jun-Dec	---	---	---	---	None	---	---
Guthrie---------	D	Jan-May	0.5-1.0	Apparent	0.5-1.0	Brief	Occasional	Brief	Occasional
		Jun-Dec	---	---	---	---	---	---	---
WaB:									
Wax-------------	C	Jan-May	1.5-3.0	Perched	---	---	None	Very brief	Rare
		Jun-Dec	---	---	---	---	None	---	---
WnB:									
Waynesboro------	B	Jan-Dec	>6.0	---	---	---	None	---	None
WnD:									
Waynesboro------	B	Jan-Dec	>6.0	---	---	---	None	---	None

Water Features—Continued

Map symbol and soil name	Hydro- logic group	Months	Water table: Upper limit	Water table: Kind	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
			Ft		Ft				
WsC:									
Waynesboro------	B	Jan-Dec	>6.0	---	---	---	None	---	None
Urban land------	---	Jan-Dec	>6.0	---	---	---	None	---	None
WtA:									
Whitwell--------	C	Jan-May	1.5-3.0	Apparent	---	---	None	Very brief	Occasional
		Jun-Dec	---	---	---	---	None	---	---
Guthrie---------	D	Jan-May	0.5-1.0	Apparent	0.5-1.0	Brief	Occasional	Very brief	Occasional
		Jun-Dec	---	---	---	---	---	---	---
Ketona----------	D	Jan-May	0.5-1.0	Apparent	0.5-1.0	Brief	Frequent	Brief	Occasional
		Jun-Dec	---	---	---	---	---	---	---
WtB:									
Whitwell--------	C	Jan-May	1.5-3.0	Apparent	---	---	None	---	None
		Jun-Dec	---	---	---	---	None	---	None
WuA:									
Whitwell--------	C	Jan-May	1.5-3.0	Apparent	---	---	None	Very brief	Occasional
		Jun-Dec	---	---	---	---	None	---	---
Ketona----------	D	Jan-May	0.5-1.0	Apparent	0.5-1.0	Brief	Frequent	Brief	Occasional
		Jun-Dec	---	---	---	---	---	---	---

Soil Features

(See text for definitions of terms used in this table. Absence of an entry indicates that the feature is not a concern or that data were not estimated.)

Map symbol and soil name	Restrictive layer: Kind	Restrictive layer: Depth to top	Restrictive layer: Hardness	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
		In	In		In
AbB:					
Albertville	Paralithic bedrock	40-60	Strongly cemented	Moderate	High
AbD:					
Albertville	Paralithic bedrock	40-60	Strongly cemented	Moderate	High
AnB:					
Allen	---	---	---	Low	Moderate
AnD:					
Allen	---	---	---	Low	Moderate
AnE:					
Allen	---	---	---	Low	Moderate
ArC:					
Allen	---	---	---	Low	Moderate
Urban land	---	---	---	---	---
ArE:					
Allen	---	---	---	Low	Moderate
Urban land	---	---	---	---	---
AuA:					
Arkabutla	---	---	---	High	High
Ketona	---	---	---	High	Moderate
BoD:					
Bodine	---	---	---	Low	High
BoE:					
Bodine	---	---	---	Low	High
BoF:					
Bodine	---	---	---	Low	High
CaA:					
Capshaw	Lithic bedrock	40-72	Indurated	High	Moderate
Ketona	---	---	---	High	Moderate
Guthrie	Fragipan	20-40	Weakly cemented	High	High
CaB:					
Capshaw	Lithic bedrock	40-72	Indurated	High	Moderate
Ketona	---	---	---	High	Moderate
Guthrie	Fragipan	20-40	Weakly cemented	High	High

Soil Features—Continued

Map symbol and soil name	Restrictive layer			Risk of corrosion	
	Kind	Depth to top	Hardness	Uncoated steel	Concrete
		In	In		In
CkE:					
Cataska----------------	Paralithic bedrock	10-20	Moderately cemented	Low	Moderate
	Lithic bedrock	20-72	Moderately cemented		
CkF:					
Cataska----------------	Paralithic bedrock	10-20	Moderately cemented	Low	Moderate
	Lithic bedrock	20-72	Moderately cemented		
CkG:					
Cataska----------------	Paralithic bedrock	10-20	Moderately cemented	Low	Moderate
	Lithic bedrock	20-72	Moderately cemented		
CnA:					
Chenneby---------------	---	---	---	High	Moderate
Ketona-----------------	---	---	---	High	Moderate
CoA:					
Chenneby---------------	---	---	---	High	Moderate
Urban land-------------	---	---	---	---	---
Ketona-----------------	---	---	---	High	Moderate
CrE:					
Cheoah-----------------	Paralithic bedrock	40-60	Strongly cemented	Low	High
Edneytown--------------	---	---	---	Moderate	Moderate
CsC:					
Conasauga--------------	Paralithic bedrock	20-40	Strongly cemented	High	High
CuC:					
Conasauga--------------	Paralithic bedrock	20-40	Strongly cemented	High	High
Urban land-------------	---	---	---	---	---
CvB:					
Craigsville------------	---	---	---	Low	Moderate
CxB:					
Cunningham-------------	Paralithic bedrock	40-60	Strongly cemented	High	High
CxD:					
Cunningham-------------	Paralithic bedrock	40-60	Strongly cemented	High	High
CxE:					
Cunningham-------------	Paralithic bedrock	40-60	Strongly cemented	High	High
CxF:					
Cunningham-------------	Paralithic bedrock	40-60	Strongly cemented	High	High

Soil Features—Continued

Map symbol and soil name	Restrictive layer			Risk of corrosion	
	Kind	Depth to top	Hardness	Uncoated steel	Concrete
		In	In		In
DeB:					
Dewey	---	---	---	High	Moderate
DeD:					
Dewey	---	---	---	High	Moderate
DoA:					
Docena	---	---	---	Moderate	Moderate
Ketona	---	---	---	High	Moderate
DsB:					
Docena	---	---	---	Moderate	Moderate
Conasauga	Paralithic bedrock	20-40	Strongly cemented	High	High
Ketona	---	---	---	High	Moderate
Du:					
Dumps	---	---	---	---	---
EdF:					
Edneytown	---	---	---	Moderate	Moderate
EdG:					
Edneytown	---	---	---	Moderate	Moderate
EnB:					
Enders	Paralithic bedrock	40-60	Strongly cemented	High	High
EnD:					
Enders	Paralithic bedrock	40-60	Strongly cemented	High	High
EuC:					
Enders	Paralithic bedrock	40-60	Moderately cemented	High	High
Urban land	---	---	---	---	---
FtB:					
Fullerton	---	---	---	High	Moderate
FtD:					
Fullerton	---	---	---	High	Moderate
FtE:					
Fullerton	---	---	---	High	Moderate
FtF:					
Fullerton	---	---	---	High	Moderate
FuE:					
Fullerton	---	---	---	High	Moderate
Urban land	---	---	---	---	---
GrA:					
Guthrie	Fragipan	20-40	Weakly cemented	High	High
HcB:					
Hanceville	---	---	---	High	High

Soil Features—Continued

Map symbol and soil name	Restrictive layer			Risk of corrosion	
	Kind	Depth to top	Hardness	Uncoated steel	Concrete
		In	In		In
HcD:					
Hanceville	---	---	---	High	High
HcE:					
Hanceville	---	---	---	High	High
HnC:					
Hanceville	---	---	---	High	High
Urban land	---	---	---	---	---
HrF:					
Hector	Lithic bedrock	14-20	Indurated	Low	Moderate
Townley	Paralithic bedrock	20-40	Strongly cemented	Moderate	High
Rock outcrop	Lithic bedrock	---	Indurated	---	---
HsB:					
Holston	---	---	---	Moderate	High
HsD:					
Holston	---	---	---	Moderate	High
JfF:					
Jefferson	---	---	---	Moderate	High
JfG:					
Jefferson	---	---	---	Moderate	High
JsE:					
Junaluska	Paralithic bedrock	20-40	Strongly cemented	Moderate	High
JsF:					
Junaluska	Paralithic bedrock	20-40	Strongly cemented	Moderate	High
JsG:					
Junaluska	Paralithic bedrock	20-40	Strongly cemented	Moderate	High
JtE:					
Junaluska	Paralithic bedrock	20-40	Strongly cemented	Moderate	High
Tsali	Paralithic bedrock	10-20	Strongly cemented	Moderate	High
JtF:					
Junaluska	Paralithic bedrock	20-40	Strongly cemented	Moderate	High
Tsali	Paralithic bedrock	10-20	Strongly cemented	Moderate	High
KtA:					
Ketona	---	---	---	High	Moderate
LyE:					
Lily	Lithic bedrock	20-40	Indurated	Moderate	High
MnC:					
Minvale	---	---	---	Moderate	Low
Urban land	---	---	---	---	---

Soil Features—Continued

Map symbol and soil name	Restrictive layer			Risk of corrosion	
	Kind	Depth to top	Hardness	Uncoated steel	Concrete
		In	In		In
MoF:					
Montevallo	Paralithic bedrock	10-20	Strongly cemented	Moderate	Moderate
MtD:					
Montevallo	Paralithic bedrock	10-20	Strongly cemented	Moderate	Moderate
Townley	Paralithic bedrock	20-40	Strongly cemented	Moderate	High
MtE:					
Montevallo	Paralithic bedrock	10-20	Strongly cemented	Moderate	Moderate
Townley	Paralithic bedrock	20-40	Strongly cemented	Moderate	High
MuE:					
Montevallo	Paralithic bedrock	10-20	Strongly cemented	Moderate	Moderate
Urban land	---	---	---	---	---
NaD:					
Nauvoo	Paralithic bedrock	40-60	Strongly cemented	Low	High
NaE:					
Nauvoo	Paralithic bedrock	40-60	Strongly cemented	Low	High
NeB:					
Nella	---	---	---	Moderate	Moderate
NeD:					
Nella	---	---	---	Moderate	Moderate
NeE:					
Nella	---	---	---	Moderate	Moderate
NeF:					
Nella	---	---	---	Moderate	Moderate
NtF:					
Nella	---	---	---	Moderate	Moderate
Hector	Lithic bedrock	10-20	Indurated	Low	Moderate
Townley	Paralithic bedrock	20-40	Strongly cemented	Moderate	High
PaE:					
Panama	---	---	---	Moderate	High
PaF:					
Panama	---	---	---	Moderate	High
PcD:					
Pigeonroost	Paralithic bedrock	20-40	Strongly cemented	Moderate	High
Cheoah	Paralithic bedrock	40-60	Strongly cemented	Low	High
Qu:					
Pits, quarries	---	---	---	---	---
Rk:					
Rock outcrop	Lithic bedrock	---	Indurated	---	---

Soil Features—Continued

Map symbol and soil name	Restrictive layer: Kind	Restrictive layer: Depth to top	Restrictive layer: Hardness	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
		In	In		In
SaA:					
Sequatchie	---	---	---	Low	Moderate
SaB:					
Sequatchie	---	---	---	Low	Moderate
ScB:					
Shack	Fragipan	20-40	---	Moderate	High
Guthrie	Fragipan	20-40	Weakly cemented	High	High
SdD:					
Shack	Fragipan	20-40	---	Moderate	High
Bodine	---	---	---	Low	High
Minvale	---	---	---	Moderate	Low
SdE:					
Shack	Fragipan	20-40	---	Moderate	High
Bodine	---	---	---	Low	High
Minvale	---	---	---	Moderate	Low
SeA:					
Shellbluff	---	---	---	Moderate	Moderate
Ketona	---	---	---	High	Moderate
ShC:					
Shelocta	---	---	---	Low	High
SpD:					
Sipsey	Paralithic bedrock	20-40	Strongly cemented	Moderate	High
SpE:					
Sipsey	Paralithic bedrock	20-40	Strongly cemented	Moderate	High
SuB:					
Subligna	---	---	---	Low	High
SxA:					
Suches	---	---	---	High	Moderate
TnB:					
Townley	Paralithic bedrock	20-40	Strongly cemented	Moderate	High
TnD:					
Townley	Paralithic bedrock	20-40	Strongly cemented	Moderate	High
TnE:					
Townley	Paralithic bedrock	20-40	Strongly cemented	Moderate	High
TnF:					
Townley	Paralithic bedrock	20-40	Strongly cemented	Moderate	High
TrC:					
Townley	Paralithic bedrock	20-40	Strongly cemented	Moderate	High
Urban land	---	---	---	---	---

Soil Features—Continued

Map symbol and soil name	Restrictive layer			Risk of corrosion	
	Kind	Depth to top	Hardness	Uncoated steel	Concrete
		In	In		In
TsE:					
Tsali------------------	Paralithic bedrock	10-20	Strongly cemented	Moderate	High
TsF:					
Tsali------------------	Paralithic bedrock	10-20	Strongly cemented	Moderate	High
TsG:					
Tsali------------------	Paralithic bedrock	10-20	Strongly cemented	Moderate	High
Uc:					
Ultic Udarents, channery--------------	---	---	---	---	---
Ug:					
Ultic Udarents, gravelly--------------	---	---	---	---	---
UrC:					
Urban land-------------	---	---	---	---	---
WaA:					
Wax--------------------	Fragipan	20-40	---	Moderate	Moderate
Guthrie----------------	Fragipan	20-40	Weakly cemented	High	High
WaB:					
Wax--------------------	Fragipan	20-40	---	Moderate	Moderate
WnB:					
Waynesboro-------------	---	---	---	High	High
WnD:					
Waynesboro-------------	---	---	---	High	High
WsC:					
Waynesboro-------------	---	---	---	High	High
Urban land-------------	---	---	---	---	---
WtA:					
Whitwell---------------	---	---	---	Moderate	Moderate
Guthrie----------------	Fragipan	20-40	Weakly cemented	High	High
Ketona-----------------	---	---	---	High	Moderate
WtB:					
Whitwell---------------	---	---	---	Moderate	Moderate
WuA:					
Whitwell---------------	---	---	---	Moderate	Moderate
Urban land-------------	---	---	---	---	---
Ketona-----------------	---	---	---	High	Moderate

Taxonomic Classification of the Soils

(An asterisk in the first column indicates a taxadjunct to the series. See text for a description of those characteristics that are outside the range of the series.)

Soil name	Family or higher taxonomic class
*Albertville	Fine, mixed, semiactive, thermic Oxyaquic Hapludults
Allen	Fine-loamy, siliceous, semiactive, thermic Typic Paleudults
*Arkabutla	Fine-silty, mixed, active, nonacid, thermic Fluvaquentic Endoaquepts
Bodine	Loamy-skeletal, siliceous, semiactive, thermic Typic Paleudults
Capshaw	Fine, mixed, semiactive, thermic Oxyaquic Hapludalfs
Cataska	Loamy-skeletal, mixed, semiactive, mesic, shallow Typic Dystrudepts
Chenneby	Fine-silty, mixed, active, thermic Fluvaquentic Dystrudepts
Cheoah	Fine-loamy, isotic, mesic Humic Dystrudepts
Conasauga	Fine, mixed, semiactive, thermic Typic Hapludalfs
Craigsville	Loamy-skeletal, mixed, superactive, mesic Fluventic Dystrudepts
Cunningham	Fine, mixed, semiactive, thermic Typic Hapludults
Dewey	Fine, kaolinitic, thermic Typic Paleudults
Docena	Fine-silty, siliceous, semiactive, thermic Aquic Hapludults
Docena	Fine-silty, siliceous, subactive, thermic Aquic Hapludults
Edneytown	Fine-loamy, mixed, active, mesic Typic Hapludults
Enders	Fine, mixed, active, thermic Typic Hapludults
Fullerton	Fine, kaolinitic, thermic Typic Paleudults
Guthrie	Fine-silty, siliceous, semiactive, thermic Typic Fragiaquults
*Hanceville	Fine, mixed, subactive, thermic Rhodic Paleudults
Hector	Loamy, siliceous, subactive, thermic Lithic Dystrudepts
Holston	Fine-loamy, siliceous, semiactive, thermic Typic Paleudults
Jefferson	Fine-loamy, siliceous, semiactive, mesic Typic Hapludults
Junaluska	Fine-loamy, mixed, subactive, mesic Typic Hapludults
*Ketona	Fine, mixed, superactive, thermic Chromic Vertic Epiaqualfs
Lily	Fine-loamy, siliceous, semiactive, mesic Typic Hapludults
Minvale	Fine-loamy, siliceous, subactive, thermic Typic Paleudults
Montevallo	Loamy-skeletal, mixed, subactive, thermic, shallow Typic Dystrudepts
Nauvoo	Fine-loamy, siliceous, semiactive, thermic Typic Hapludults
Nella	Fine-loamy, siliceous, semiactive, thermic Typic Paleudults
Panama	Loamy-skeletal, siliceous, active, thermic Typic Paleudults
Pigeonroost	Fine-loamy, mixed, active, mesic Typic Hapludults
Sequatchie	Fine-loamy, siliceous, semiactive, thermic Humic Hapludults
*Shack	Fine-loamy, siliceous, semiactive, thermic Oxyaquic Paleudults
Shellbluff	Fine-silty, mixed, active, thermic Fluventic Dystrudepts
Shelocta	Fine-loamy, mixed, active, mesic Typic Hapludults
Sipsey	Fine-loamy, siliceous, semiactive, thermic Typic Hapludults
Subligna	Loamy-skeletal, siliceous, subactive, thermic Fluventic Dystrudepts
Suches	Fine-loamy, mixed, semiactive, mesic Fluventic Dystrudepts
Townley	Fine, mixed, semiactive, thermic Typic Hapludults
Tsali	Loamy, mixed, subactive, mesic, shallow Typic Hapludults
Wax	Fine-loamy, siliceous, semiactive, thermic Typic Fragiudults
Waynesboro	Fine, kaolinitic, thermic Typic Paleudults
Whitwell	Fine-loamy, siliceous, semiactive, thermic Aquic Hapludults

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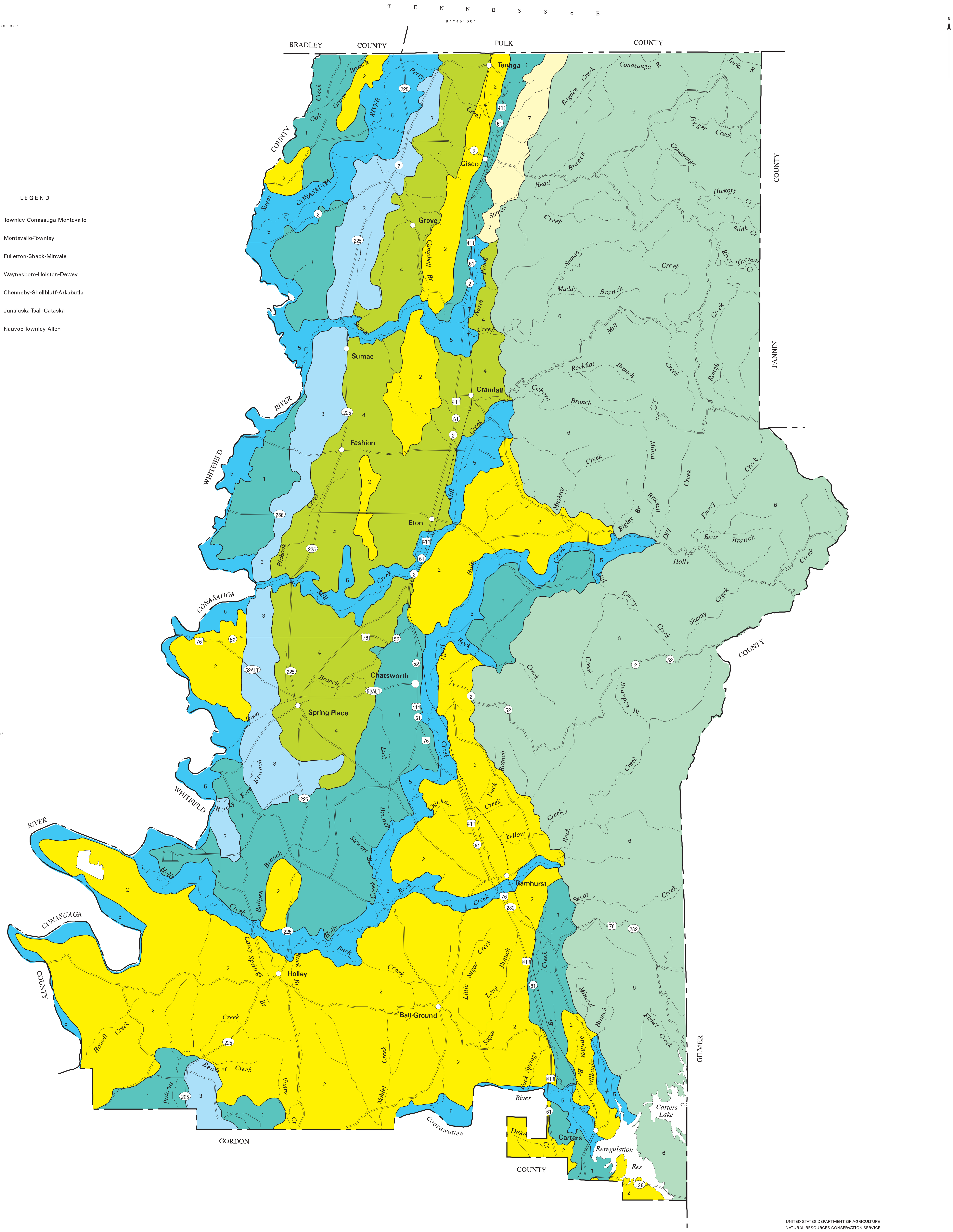

LEGEND

1	Townley-Conasauga-Montevallo
2	Montevallo-Townley
3	Fullerton-Shack-Minvale
4	Waynesboro-Holston-Dewey
5	Chenneby-Shellbluff-Arkabutla
6	Junaluska-Tsali-Cataska
7	Nauvoo-Townley-Allen

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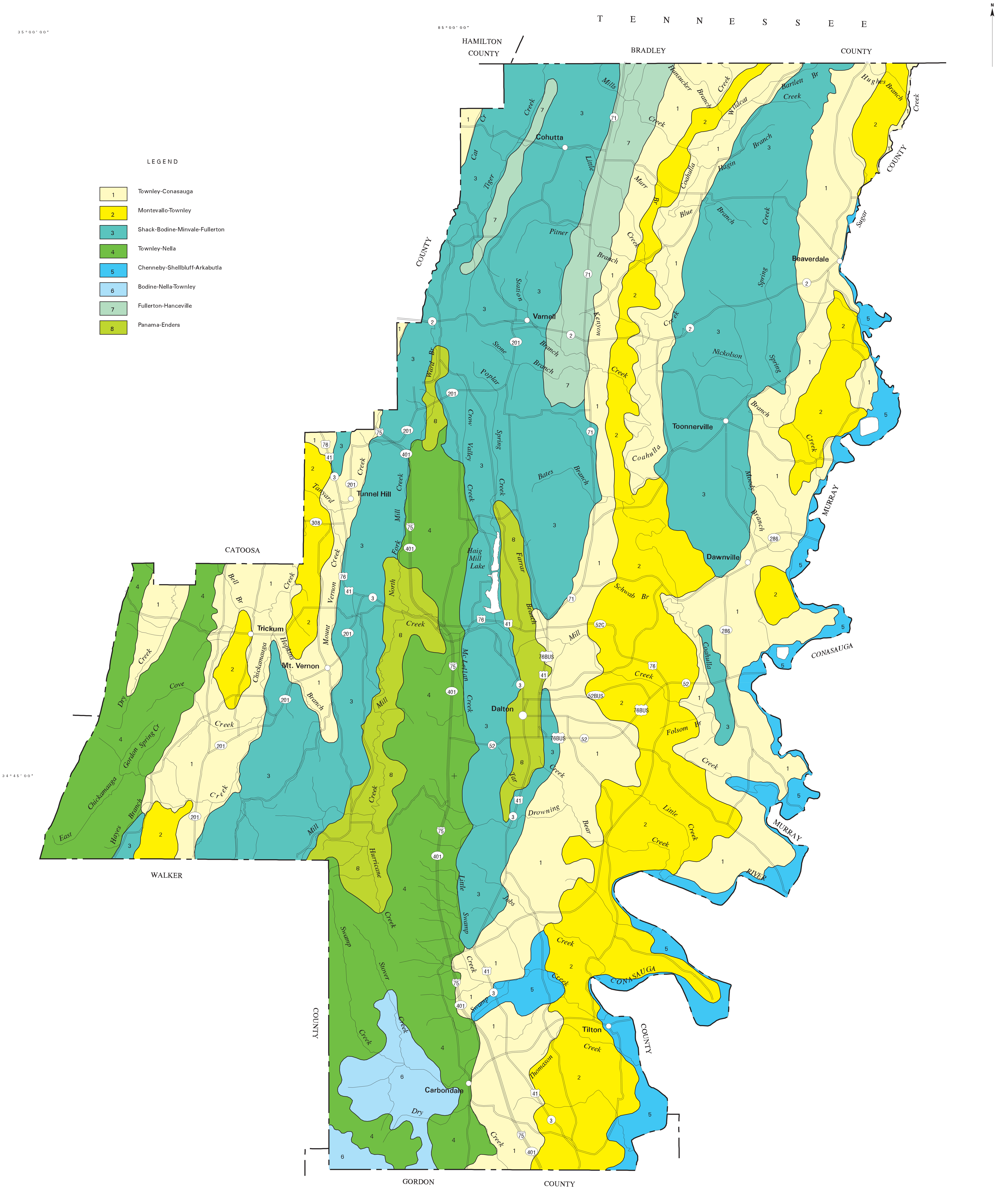
FOREST SEVICE
UNIVERSITY OF GEORGIA
COLLEGE OF AGRICULTURAL AND ENVIRONMENTAL SCIENCES
AGRICULTURAL EXPERIMENT STATIONS

GENERAL SOIL MAP
MURRAY COUNTY, GEORGIA

MILES
KILOMETERS
SCALE = 1:80000

Each area outlined on this map consists of more than one kind of soil. The map is thus meant for general planning rather than a basis for decisions on the use of specific tracts.



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FOREST SERVICE
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AGRICULTURAL EXPERIMENT STATIONS

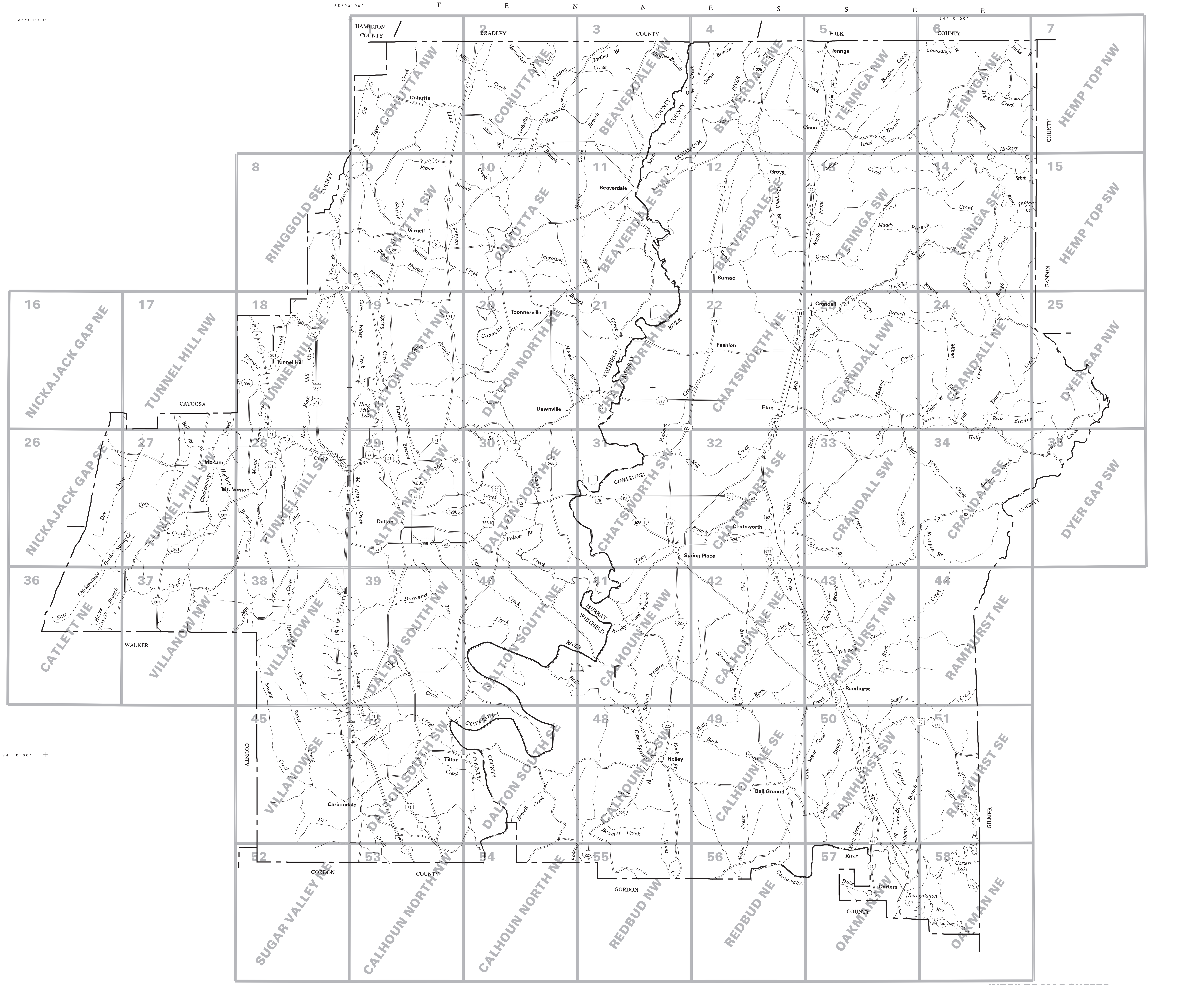
GENERAL SOIL MAP
WHITFIELD COUNTY, GEORGIA

MILES

KILOMETERS

SCALE = 1:80000

Each area outlined on this map consists of more than one kind of soil. The map is thus meant for general planning rather than a basis for decisions on the use of specific tracts.



INDEX TO MAP SHEETS
MURRAY AND WHITFIELD COUNTIES, GEORGIA

SCALE = 1:100000

SOIL LEGEND

Map unit symbols and names are listed in alphabetical order. Map symbols consist of letters. The first letter is capitalized and is the first letter of the series name (or the name of the higher classification or miscellaneous area). The second letter is lower case. The third letter, if used, is capitalized and indicates the class of slope.

SYMBOL	NAME
AbB	Albertville silt loam, 2 to 6 percent slopes
AbD	Albertville silt loam, 6 to 15 percent slopes
AnB	Allen loam, 2 to 6 percent slopes
AnD	Allen loam, 6 to 15 percent slopes
AnE	Allen loam, 15 to 30 percent slopes
ArC	Allen-Urban land complex, 2 to 15 percent slopes
ArE	Allen-Urban land complex, 15 to 30 percent slopes
AuA	Arkabutla silt loam, 0 to 2 percent slopes, occasionally flooded
BoD	Bodine very gravelly silt loam, 6 to 15 percent slopes
BoE	Bodine very gravelly silt loam, 15 to 30 percent slopes
BoF	Bodine very gravelly silt loam, 30 to 60 percent slopes
CaA	Capshaw silt loam, 0 to 2 percent slopes
CaB	Capshaw silt loam, 2 to 6 percent slopes
CkE	Cataska channery silt loam, 5 to 25 percent slopes
CkF	Cataska channery silt loam, 25 to 45 percent slopes
CkG	Cataska channery silt loam, 45 to 70 percent slopes
CnA	Chenneby silt loam, 0 to 2 percent slopes, occasionally flooded
CoA	Chenneby-Urban land complex, 0 to 2 percent slopes, occasionally flooded
CrE	Cheoah-Edneytown complex, 15 to 35 percent slopes
CsC	Conasauga silt loam, 6 to 10 percent slopes
CuC	Conasauga-Urban land complex, 2 to 10 percent slopes
CvB	Craigsville gravelly sandy loam, 0 to 5 percent slopes, occasionally flooded
CxB	Cunningham silt loam, 2 to 6 percent slopes
CxD	Cunningham silt loam, 6 to 15 percent slopes
CxE	Cunningham silt loam, 15 to 30 percent slopes
CxF	Cunningham silt loam, 30 to 60 percent slopes
DeB	Dewey silt loam, 2 to 6 percent slopes
DeD	Dewey silt loam, 6 to 15 percent slopes
DoA	Docena silt loam, 0 to 2 percent slopes, occasionally flooded
DsB	Docena-Conasauga complex, 2 to 6 percent slopes
Du	Dumps, sediment basins
EdF	Edneytown loam, 25 to 45 percent slopes, rubbly
EdG	Edneytown loam, 45 to 70 percent slopes, rubbly
EnB	Enders silt loam, 2 to 6 percent slopes
EnD	Enders silt loam, 6 to 15 percent slopes
EuC	Enders-Urban land complex, 2 to 15 percent slopes
FtB	Fullerton gravelly silt loam, 2 to 6 percent slopes
FtD	Fullerton gravelly silt loam, 6 to 15 percent slopes
FtE	Fullerton gravelly silt loam, 15 to 30 percent slopes
FtF	Fullerton gravelly silt loam, 30 to 60 percent slopes
FuE	Fullerton-Urban land complex, 15 to 30 percent slopes
GrA	Guthrie silt loam, 0 to 2 percent slopes, occasionally flooded
HcB	Hanceville loam, 2 to 6 percent slopes
HcD	Hanceville loam, 6 to 15 percent slopes
HcE	Hanceville loam, 15 to 30 percent slopes
HnC	Hanceville-Urban land complex, 2 to 15 percent slopes
HrF	Hector-Townley-Rock outcrop complex, 5 to 35 percent slopes
HsB	Holston fine sandy loam, 2 to 6 percent slopes
HsD	Holston fine sandy loam, 6 to 15 percent slopes
JfF	Jefferson gravelly sandy loam, 25 to 45 percent slopes
JfG	Jefferson gravelly sandy loam, 45 to 70 percent slopes, very stony
JsE	Junaluska loam, 5 to 25 percent slopes
JsF	Junaluska loam, 25 to 45 percent slopes
JsG	Junaluska loam, 45 to 70 percent slopes
JtE	Junaluska-Tsali complex, 5 to 25 percent slopes
JtF	Junaluska-Tsali complex, 25 to 45 percent slopes
KtA	Ketona silt loam, 0 to 2 percent slopes, occasionally flooded
LyE	Lily fine sandy loam, 5 to 25 percent slopes, rubbly
MnC	Minvale-Urban land complex, 2 to 15 percent slopes
MoF	Montevallo very channery loam, 30 to 60 percent slopes
MtD	Montevallo-Townley complex, 6 to 15 percent slopes
MtE	Montevallo-Townley complex, 15 to 30 percent slopes
MuE	Montevallo-Urban land complex, 10 to 25 percent slopes
NaD	Nauvoo fine sandy loam, 6 to 15 percent slopes
NaE	Nauvoo fine sandy loam, 15 to 35 percent slopes
NeB	Nella gravelly fine sandy loam, 2 to 6 percent slopes
NeD	Nella gravelly fine sandy loam, 6 to 15 percent slopes
NeE	Nella gravelly fine sandy loam, 15 to 30 percent slopes
NeF	Nella gravelly fine sandy loam, 30 to 60 percent slopes
NtF	Nella-Hector-Townley complex, 30 to 60 percent slopes, rubbly
PaE	Panama very gravelly fine sandy loam, 15 to 30 percent slopes
PaF	Panama very gravelly fine sandy loam, 30 to 60 percent slopes
PcD	Pigeonroost-Cheoah complex, 5 to 15 percent slopes
Qu	Pits, quarries
Rk	Rock outcrop
SaA	Sequatchie loam, 0 to 2 percent slopes, occasionally flooded
SaB	Sequatchie loam, 2 to 6 percent slopes
ScB	Shack gravelly silt loam, 2 to 6 percent slopes
SdD	Shack-Minvale-Bodine complex, 6 to 15 percent slopes
SdE	Shack-Minvale-Bodine complex, 15 to 30 percent slopes
SeA	Shellbluff silt loam, 0 to 2 percent slopes, occasionally flooded
ShC	Shelocta channery loam, 2 to 15 percent slopes
SpD	Sipsey fine sandy loam, 4 to 15 percent slopes
SpE	Sipsey fine sandy loam, 15 to 30 percent slopes
SuB	Subligna extremely gravelly sandy loam, 0 to 5 percent slopes, occasionally flooded
SxA	Suches loam, 0 to 2 percent slopes, occasionally flooded
TnB	Townley silt loam, 2 to 6 percent slopes
TnD	Townley silt loam, 6 to 15 percent slopes
TnE	Townley silt loam, 15 to 30 percent slopes
TnF	Townley silt loam, 30 to 45 percent slopes
TrC	Townley-Urban land complex, 2 to 15 percent slopes
TsE	Tsali channery loam, 5 to 25 percent slopes
TsF	Tsali channery loam, 25 to 45 percent slopes
TsG	Tsali channery loam, 45 to 70 percent slopes
Uc	Ultic Udarents, channery
Ug	Ultic Udarents, gravelly
UrC	Urban land, 2 to 10 percent slopes
W	Water
WaA	Wax fine sandy loam, 0 to 2 percent slopes, occasionally flooded
WaB	Wax fine sandy loam, 2 to 6 percent slopes, rarely flooded
WnB	Waynesboro sandy loam, 2 to 6 percent slopes
WnD	Waynesboro sandy loam, 6 to 15 percent slopes
WsC	Waynesboro-Urban land complex, 2 to 15 percent slopes
WtA	Whitwell silt loam, 0 to 2 percent slopes, occasionally flooded
WtB	Whitwell silt loam, 2 to 6 percent slopes
WuA	Whitwell-Urban land complex, 0 to 2 percent slopes, occasionally flooded

CONVENTIONAL AND SPECIAL SYMBOLS LEGEND

CULTURAL FEATURES

BOUNDARIES

National, state, or province

County or parish

Field sheet matchline & neatline

STATE COORDINATE TICK
1 890 000 FEET

GEOGRAPHIC COORDINATE TICK

TRANSPORTATION

ROAD EMBLEM & DESIGNATIONS

Interstate 173 79 345

Federal 287 410 224

State 52 52 347

LOCATED OBJECTS

Airport, airfield

Cemetery

Church

HYDROGRAPHIC FEATURES

STREAMS

Unclassified stream

Drainage end (indicates direction of flow)

SOIL SURVEY FEATURES

SOIL DELINEATIONS AND SYMBOLS AuA CnA

MISCELLANEOUS SURFACE FEATURES

Borrow pit

Gravelly spot

Mine or quarry

Rock outcrop

Short steep slope

Sinkhole

Wet spot

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North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUARTER QUADRANGLE LOCATION

SCALE 1:12000

0.5 0 0.5
MILES

500 0 500 1000 1500 2000 2500 3000 3500
FEET

0.5 0 0.5
KILOMETERS

2 COHUTTA NE
8 RINGGOLD SE
9 COHUTTA SW
10 COHUTTA SE

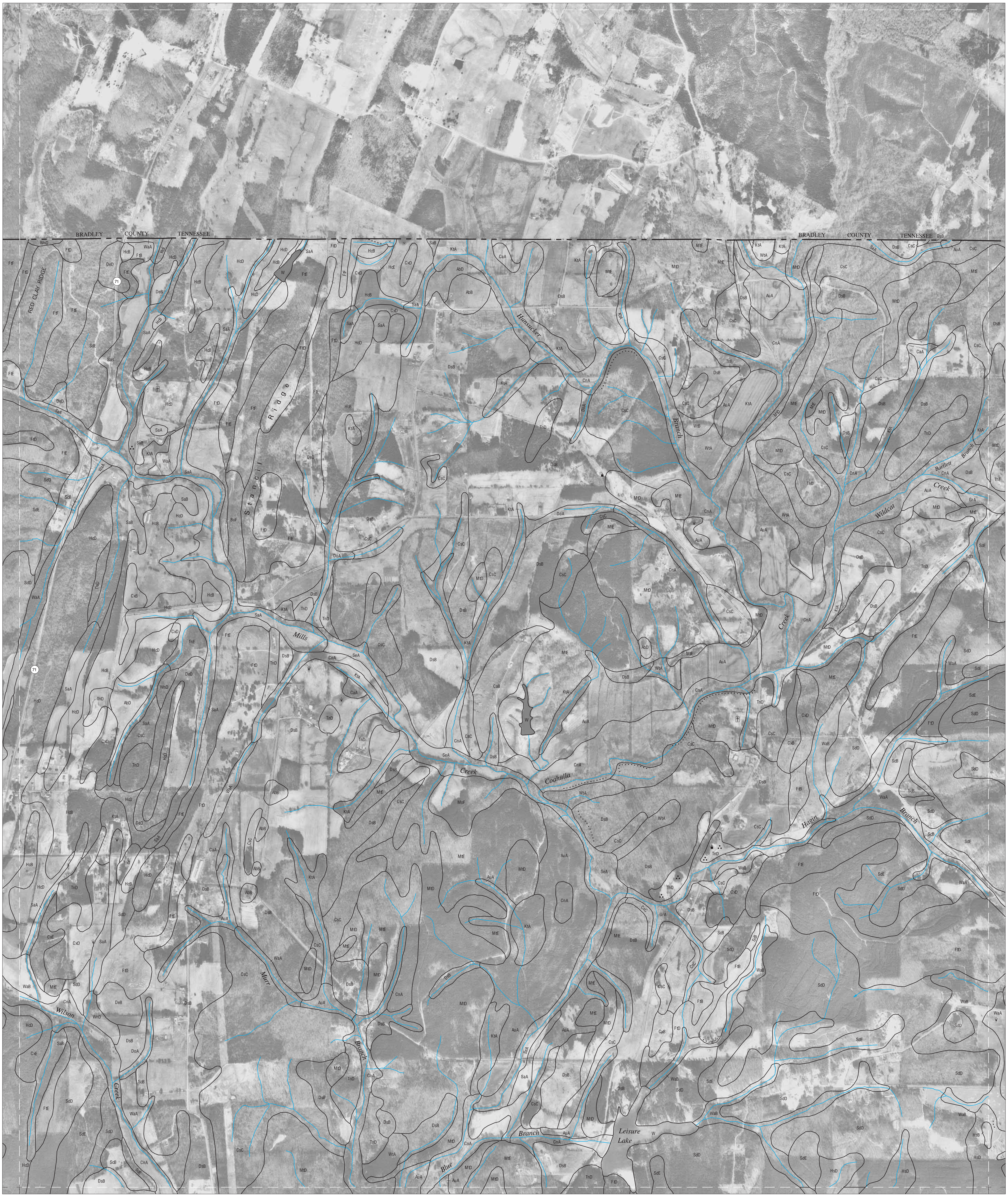
INDEX TO ADJOINING 3.75 MAPS

COHUTTA NW, (OVERSIZED) GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 1 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

84° 56′15″ 84° 52′30″

35° 00′00″ 35° 00′00″



34° 56′15″ 34° 56′15″

84° 56′15″ 84° 52′30″

Joins sheet 1, Cohutta NW

Joins sheet 3, Beaverdale NW

Joins sheet 9, Cohutta SW

Joins sheet 10, Cohutta SE

Joins sheet 11, Beaverdale SW

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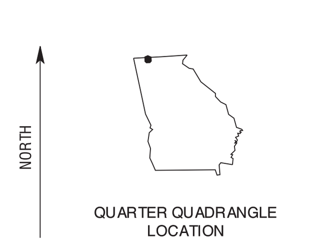

QUARTER QUADRANGLE LOCATION

SCALE 1:12000

0.5 0 0.5
MILES

500 0 500 1000 1500 2000 2500 3000 3500
FEET

0.5 0 0.5
KILOMETERS

1		3
9	10	11

1 COHUTTA NW
3 BEAVERDALE NW
9 COHUTTA SW
10 COHUTTA SE
11 BEAVERDALE SW

INDEX TO ADJOINING 3.75 MAPS

COHUTTA NE, GEORGIA

3.75 MINUTE SERIES
SHEET NUMBER 2 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

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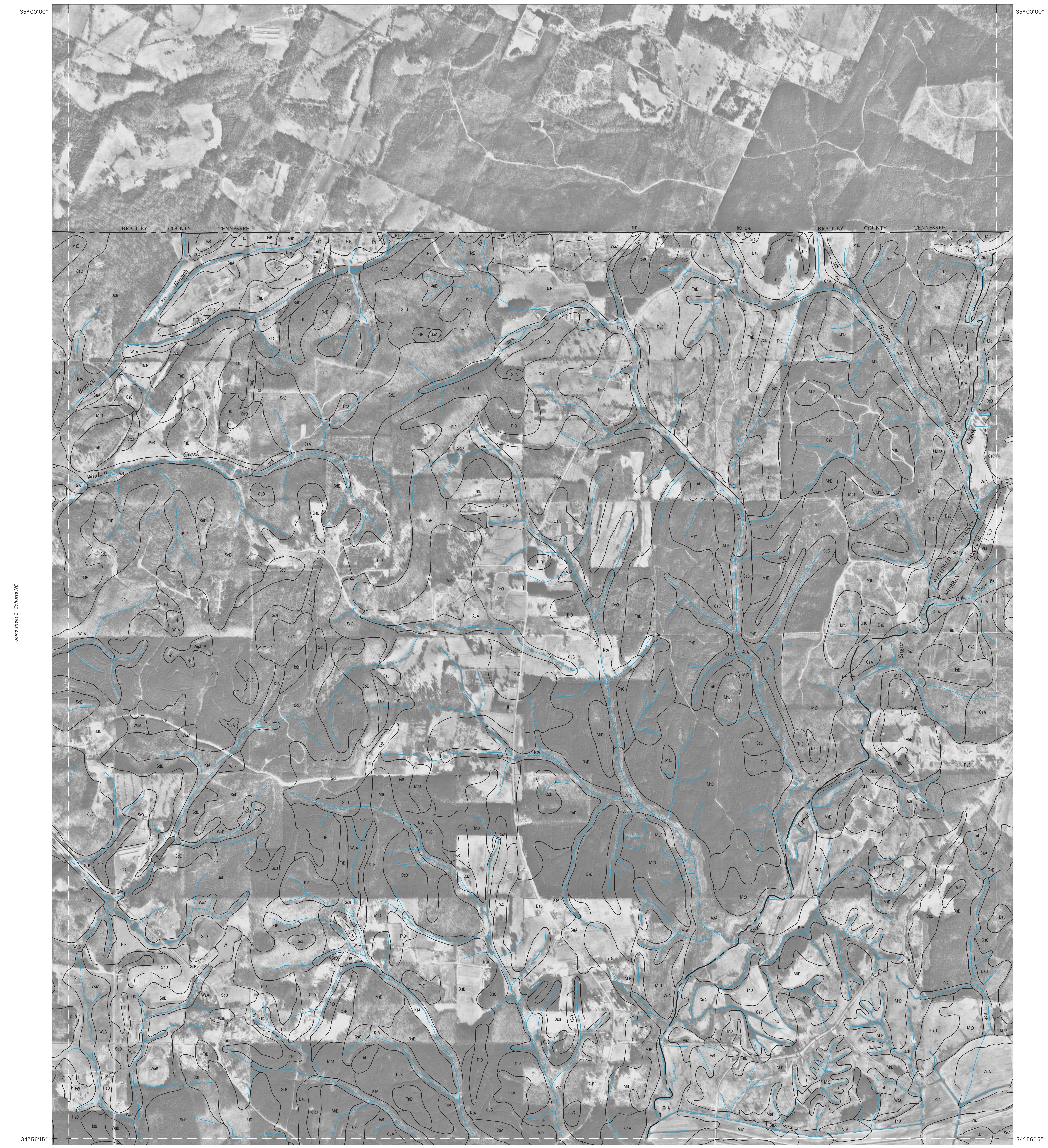

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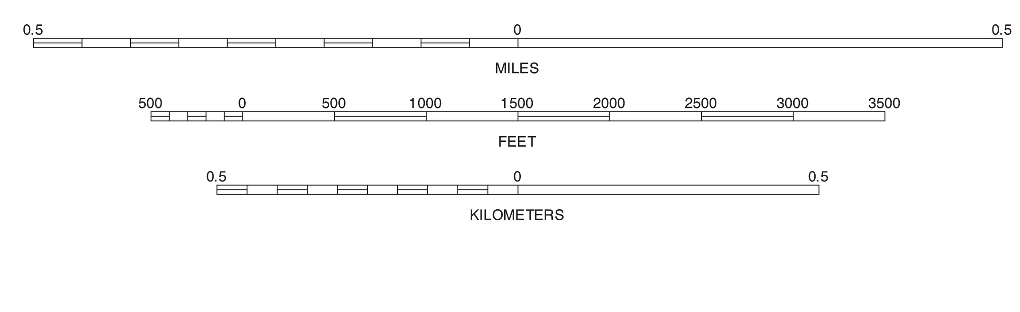
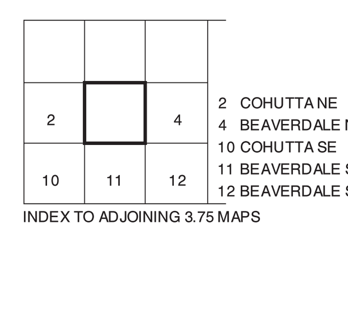
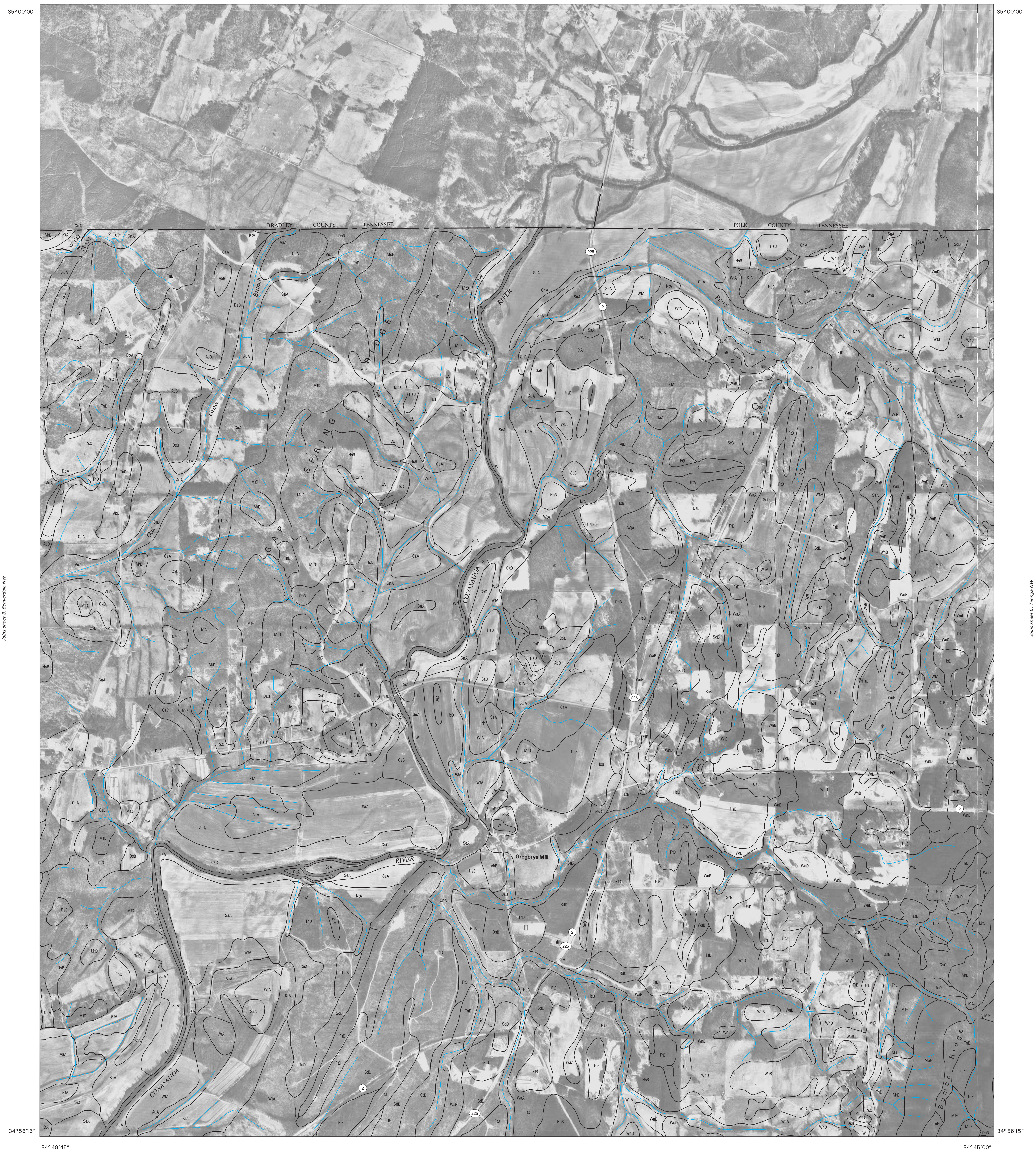




BEAVERDALE NW, GEORGIA

3.75 MINUTE SERIES
SHEET NUMBER 3 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.



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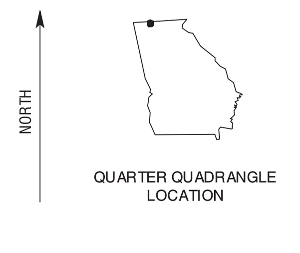
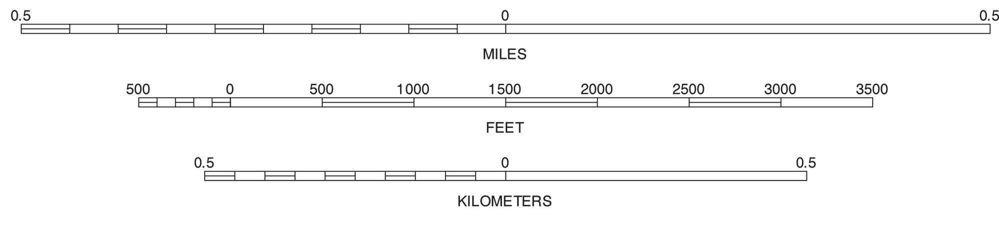
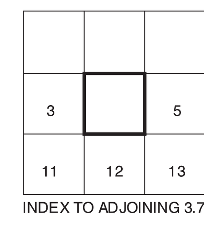
North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



QUARTER QUADRANGLE LOCATION

SCALE 1:12000





3 BEAVERDALE NW
5 TENNGA NW
11 BEAVERDALE SW
12 BEAVERDALE SE
13 TENNGA SW

INDEX TO ADJOINING 3.75 MAPS

BEAVERDALE NE, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 4 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

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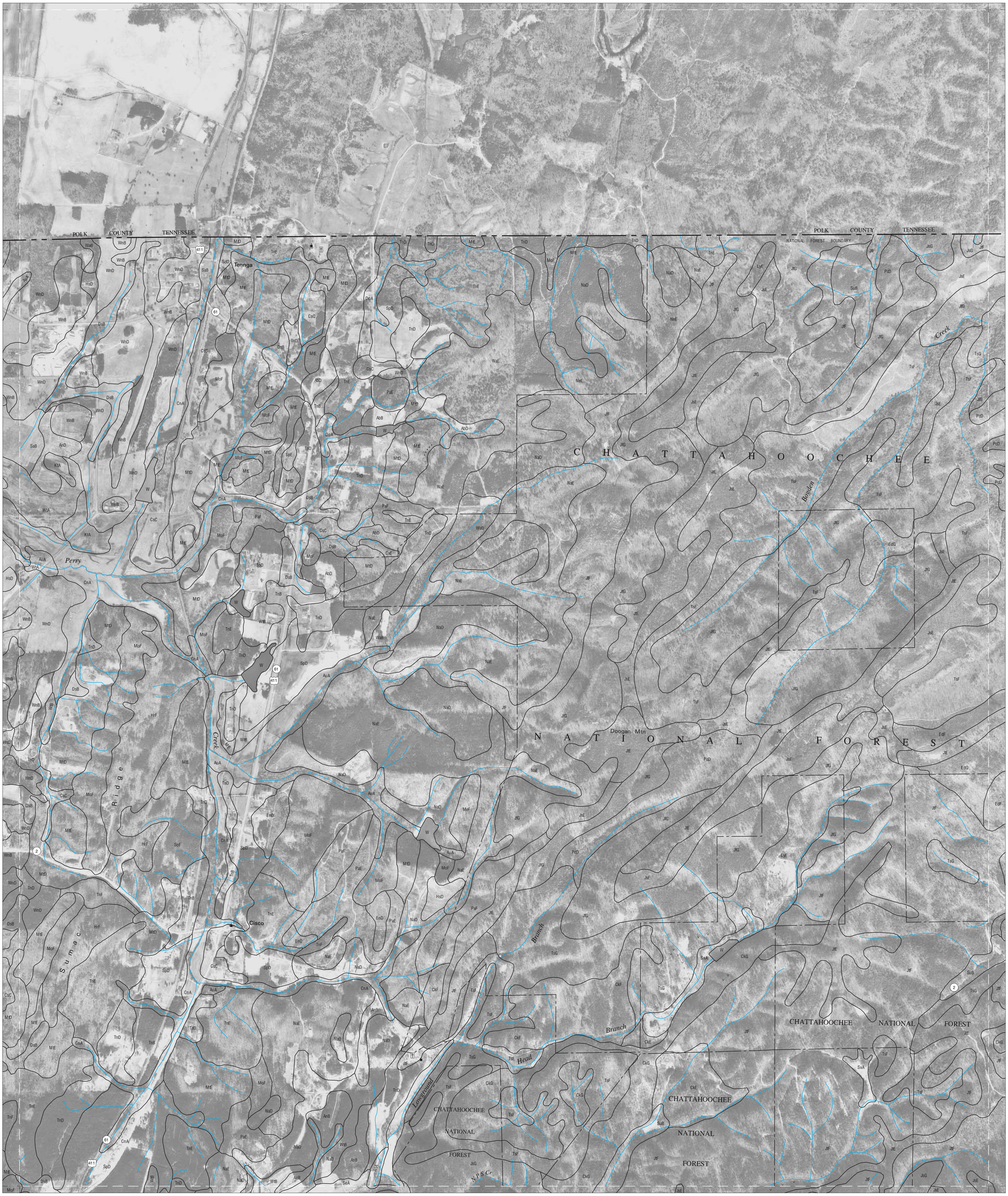
MURRAY AND WHITFIELD COUNTIES, GEORGIA
TENNGA NW QUADRANGLE
SHEET NUMBER 5 OF 58



Joins sheet 4, Beaverdale NE

Joins sheet 6, Tennga NE

Joins sheet 13, Tennga SW

Joins sheet 12, Beaverdale SE

Joins sheet 14, Tennga SE

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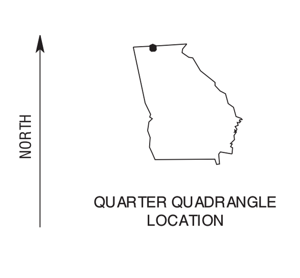
North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



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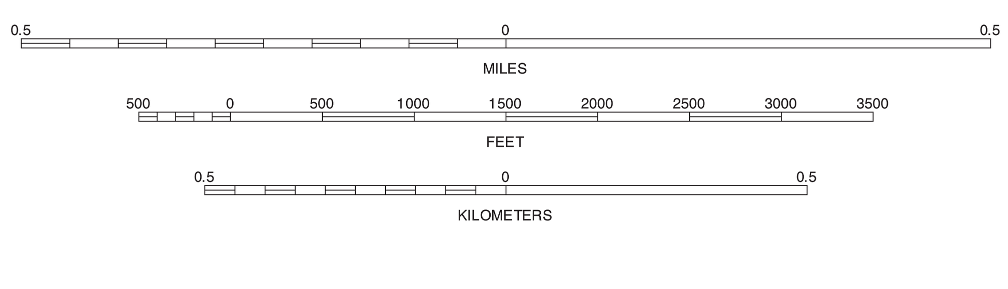

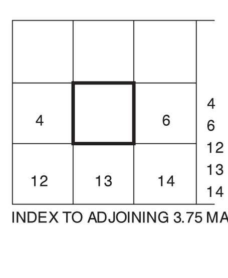

4 BEAVERDALE NE
6 TENNGA NE
12 BEAVERDALE SE
13 TENNGA SW
14 TENNGA SE

INDEX TO ADJOINING 3.75 MAPS

TENNGA NW, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 5 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

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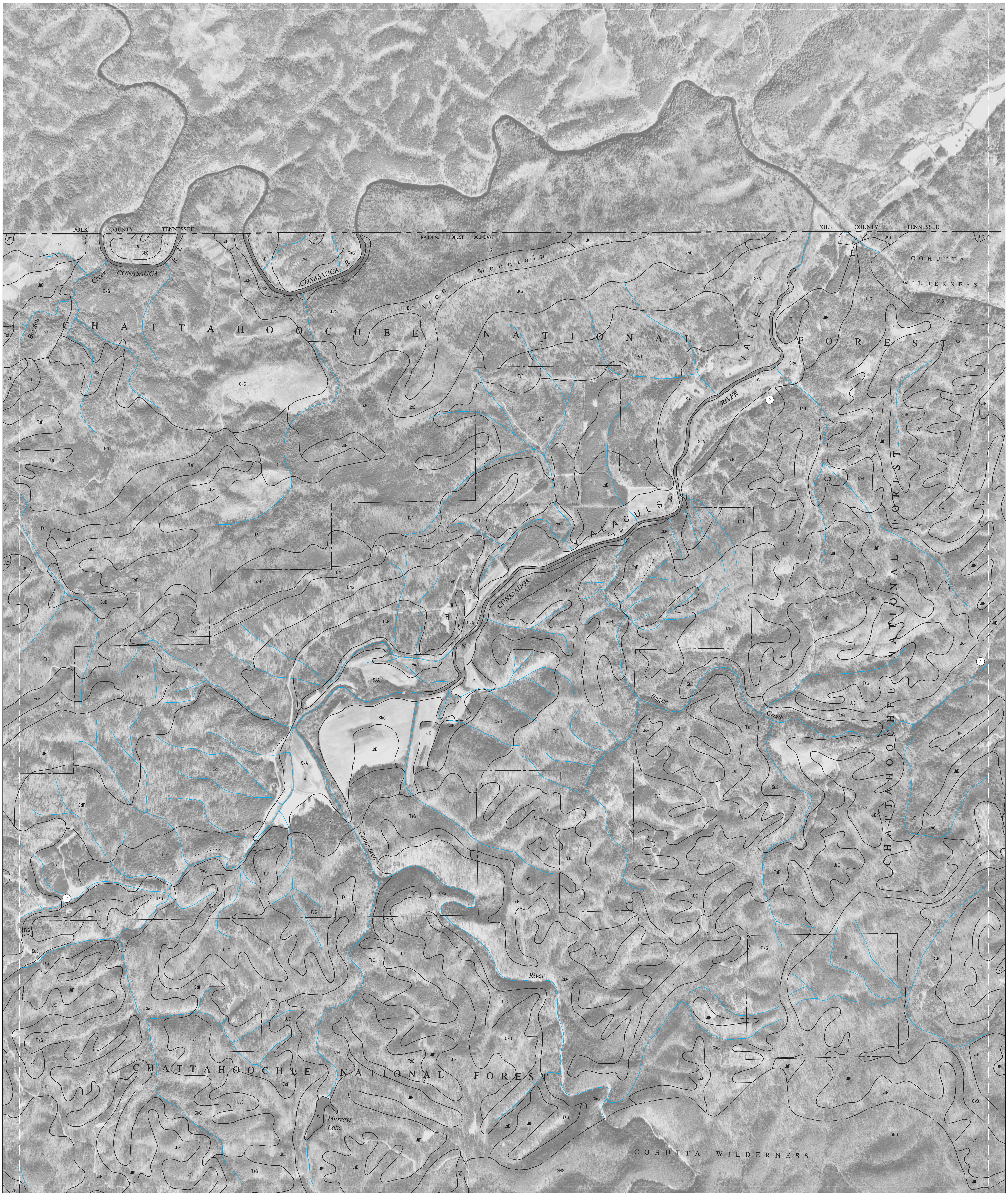
MURRAY AND WHITFIELD COUNTIES, GEORGIA
TENNGA NE QUADRANGLE
SHEET NUMBER 6 OF 58



Joins sheet 14, Tennga SE

Joins sheet 13, Tennga SW

Joins sheet 15, Hemp Top SW

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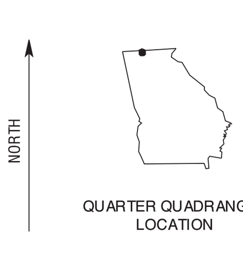
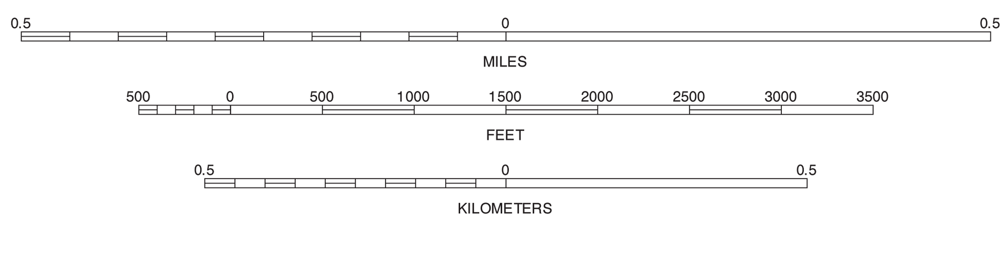
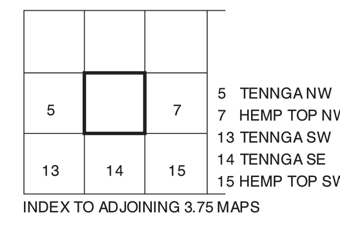
North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



QUARTER QUADRANGLE LOCATION

SCALE 1:12000





INDEX TO ADJOINING 3.75 MAPS

TENNGA NE, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 6 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

MURRAY AND WHITFIELD COUNTIES, GEORGIA
HEMP TOP NW QUADRANGLE
SHEET NUMBER 7 OF 58

84° 37′30″ | 84° 33′45″

35° 00′00″ | 35° 00′00″

Joins sheet 6, Tennga NE

34° 56′15″ | 34° 56′15″

84° 37′30″ | 84° 33′45″

Joins sheet 15, Hemp Top SW

Joins sheet 14, Tennga SE

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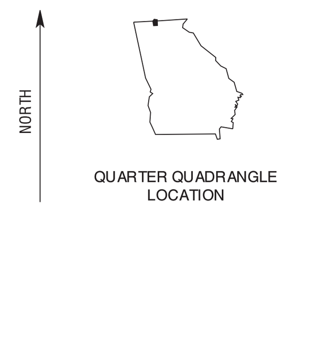
North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



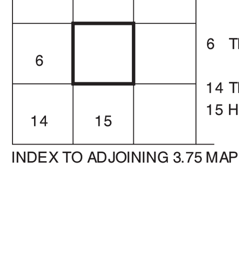
QUARTER QUADRANGLE LOCATION

SCALE 1:12000

0.5 0 0.5
MILES

500 0 500 1000 1500 2000 2500 3000 3500
FEET

0.5 0 0.5
KILOMETERS



INDEX TO ADJOINING 3.75 MAPS

HEMP TOP NW, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 7 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

Joins sheet 1, Cohutta NW

85° 03′ 45″ 85° 00′ 00″

34° 56′ 15″ 34° 56′ 15″

Joins sheet 9, Cohutta SW

34° 52′ 30″ 34° 52′ 30″

85° 03′ 45″ 85° 00′ 00″

Joins sheet 17, Tunnel Hill NW

Joins sheet 18, Tunnel Hill NE

Joins sheet 19, Dalton North NW

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North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUARTER QUADRANGLE LOCATION

SCALE 1:12000

0.5 0 0.5
MILES

500 0 500 1000 1500 2000 2500 3000 3500
FEET

0.5 0 0.5
KILOMETERS

		1
	■	9
17	18	19

1 COHUTTA NW
9 COHUTTA SW
17 TUNNEL HILL NW
18 TUNNEL HILL NE
19 DALTON NORTH NW

INDEX TO ADJOINING 3.75 MAPS

RINGGOLD SE, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 8 OF 58

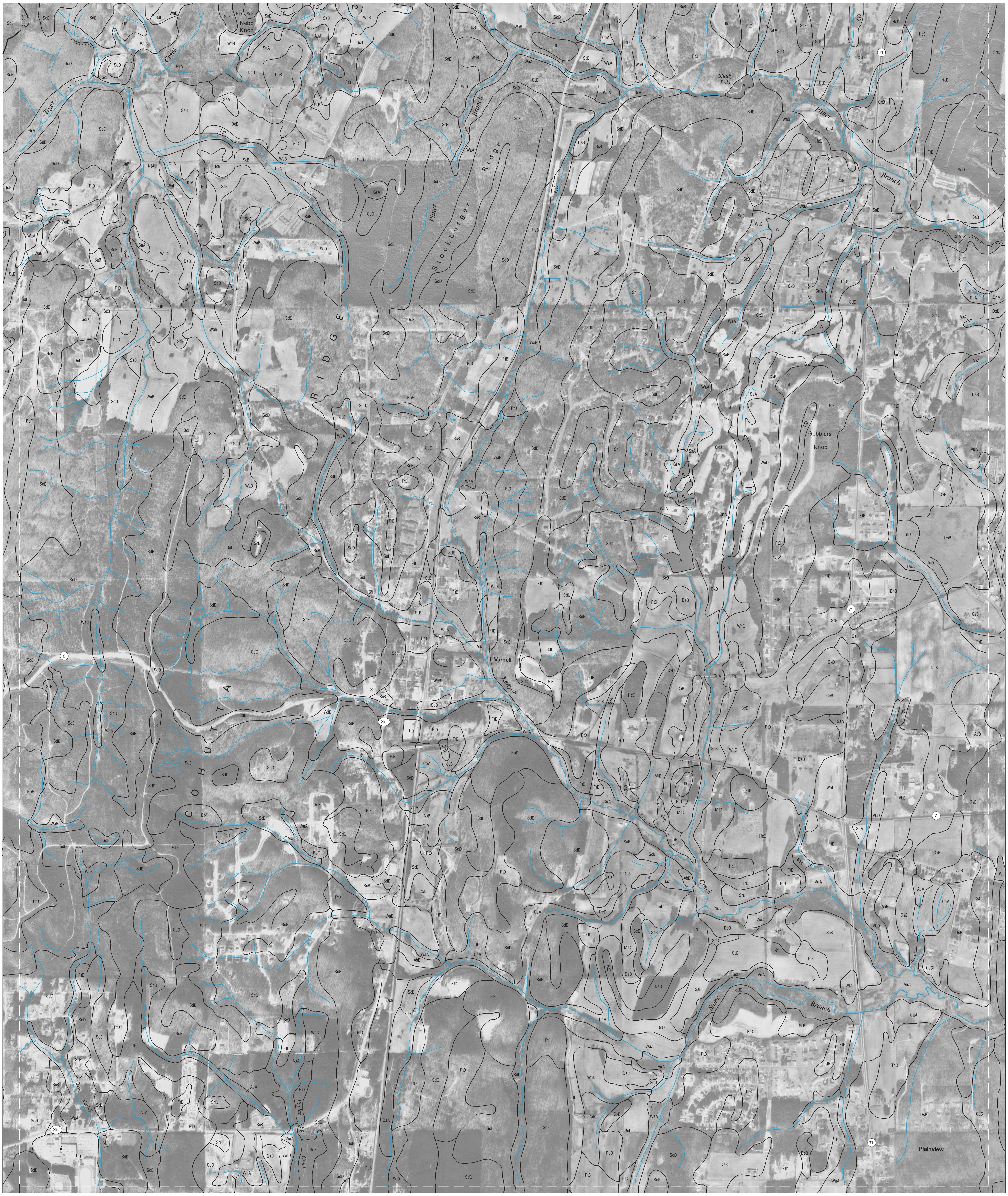
Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

Joins sheet 1, Cohutta NW

Joins sheet 2, Cohutta NE

85° 00′00″ 34° 56′15″

84° 56′15″ 34° 56′15″



Joins sheet 8, Ringgold SE

Joins sheet 10, Cohutta SE

34° 52′30″ 85° 00′00″

34° 52′30″ 84° 56′15″

Joins sheet 19, Dalton North NW

Joins sheet 18, Tunnel Hill NE

Joins sheet 20, Dalton North NE

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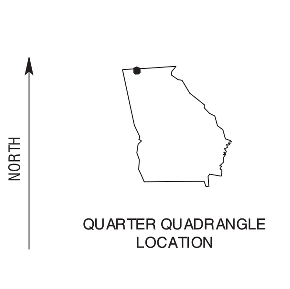
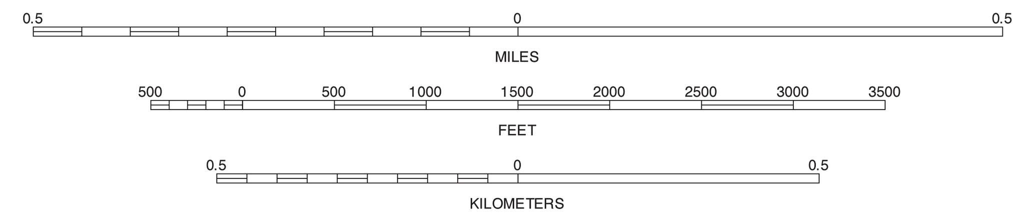
North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



QUARTER QUADRANGLE LOCATION

SCALE 1:12000



1	1	2
8		10
18	19	20

1 COHUTTA NW
2 COHUTTA NE
8 RINGGOLD SE
10 COHUTTA SE
18 TUNNEL HILL NE
19 DALTON NORTH NW
20 DALTON NORTH NE

INDEX TO ADJOINING 3.75 MAPS

COHUTTA SW, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 9 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

MURRAY AND WHITFIELD COUNTIES, GEORGIA
COHUTTA SE QUADRANGLE
SHEET NUMBER 10 OF 58

Joins sheet 1, Cohutta NW

Joins sheet 2, Cohutta NE

Joins sheet 3, Beaverdale NW

84° 56′15″

84° 52′30″

34° 56′15″

34° 56′15″

Joins sheet 9, Cohutta SW

Joins sheet 11, Beaverdale SW

34° 52′30″

34° 52′30″

84° 56′15″

84° 52′30″

Joins sheet 19, Dalton North NW

Joins sheet 20, Dalton North NE

Joins sheet 21, Chatsworth NW

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North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUARTER QUADRANGLE LOCATION

SCALE 1:12000

0.5 0 0.5

MILES

500 0 500 1000 1500 2000 2500 3000 3500

FEET

0.5 0 0.5

KILOMETERS

1	2	3
9		11
19	20	21

1 COHUTTA NW
2 COHUTTA NE
3 BEAVERDALE NW
9 COHUTTA SW
11 BEAVERDALE SW
19 DALTON NORTH NW
20 DALTON NORTH NE
21 CHATSWORTH NW

INDEX TO ADJOINING 3.75 MAPS

COHUTTA SE, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 10 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

MURRAY AND WHITFIELD COUNTIES, GEORGIA
BEAVERDALE SW QUADRANGLE
SHEET NUMBER 11 OF 58

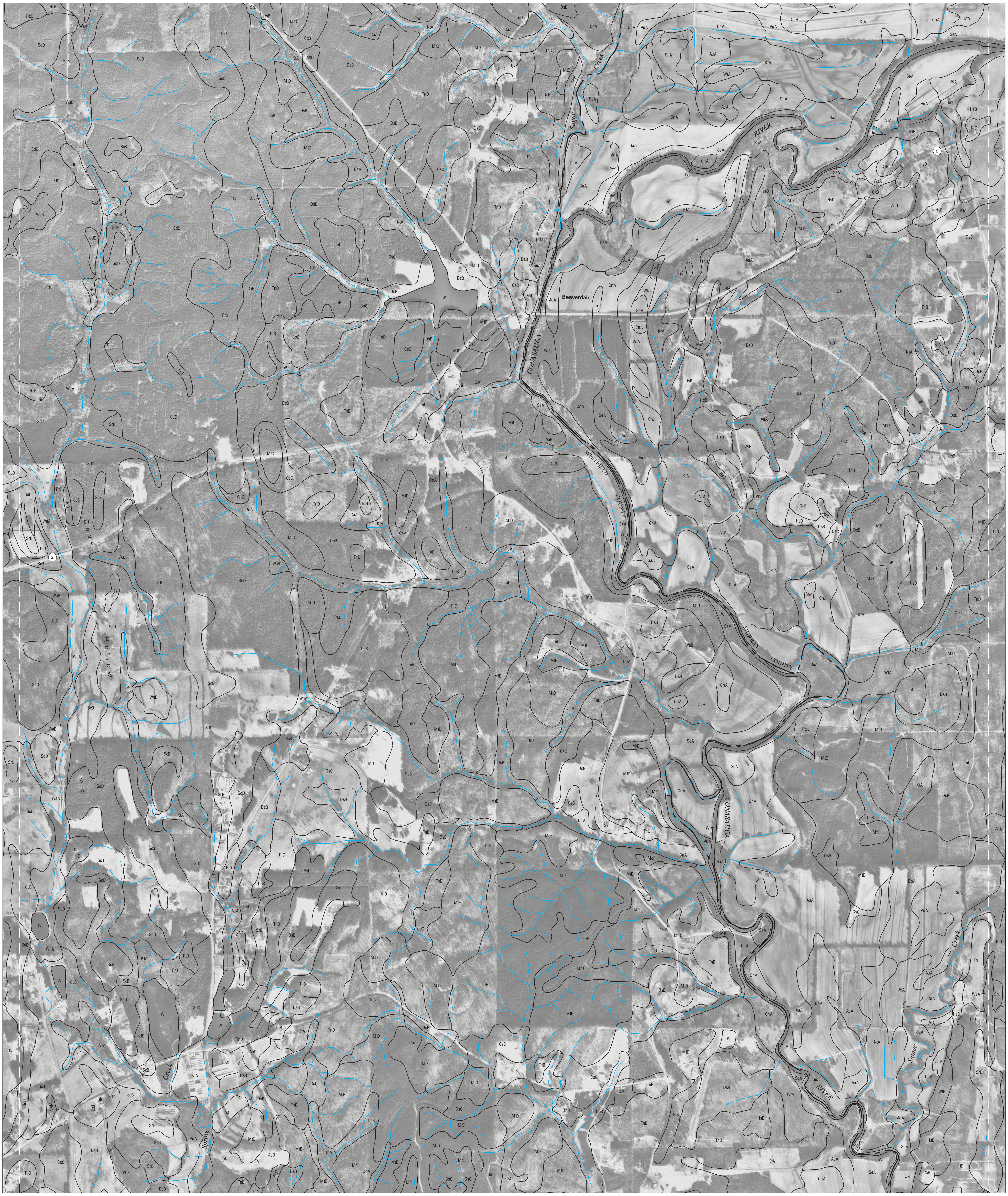
Joins sheet 2, Cohutta NE

Joins sheet 4, Beaverdale NE

Joins sheet 3, Beaverdale NW

84° 52′30″ 84° 48′45″

34° 56′15″ 34° 56′15″



Joins sheet 10, Cohutta SE

Joins sheet 12, Beaverdale SE

34° 52′30″ 34° 52′30″

84° 52′30″ 84° 48′45″

Joins sheet 20, Dalton North NE

Joins sheet 21, Chatsworth NW

Joins sheet 22, Chatsworth NE

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North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUARTER QUADRANGLE LOCATION

SCALE 1:12000

0.5 0 0.5
MILES

500 0 500 1000 1500 2000 2500 3000 3500
FEET

0.5 0 0.5
KILOMETERS

2	3	4
10		12
20	21	22

2 COHUTTA NE
3 BEAVERDALE NW
4 BEAVERDALE NE
10 COHUTTA SE
12 BEAVERDALE SE
20 DALTON NORTH NE
21 CHATSWORTH NW
22 CHATSWORTH NE

INDEX TO ADJOINING 3.75 MAPS

BEAVERDALE SW, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 11 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

Joins sheet 3, Beaverdale NW

Joins sheet 4, Beaverdale NE

Joins sheet 5, Tennga NW

84° 48′ 45″ 84° 45′ 00″

34° 56′15″ 34° 56′15″

Joins sheet 11, Beaverdale SW

Joins sheet 13, Tennga SW

34° 52′30″ 34° 52′30″

84° 48′ 45″ 84° 45′ 00″

Joins sheet 21, Chatsworth NW

Joins sheet 22, Chatsworth NE

Joins sheet 23, Crandall NW

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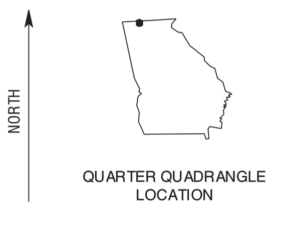
North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



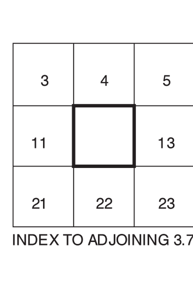
QUARTER QUADRANGLE LOCATION

SCALE 1:12000

0.5 0 0.5
MILES

500 0 500 1000 1500 2000 2500 3000 3500
FEET

0.5 0 0.5
KILOMETERS



3 BEAVERDALE NW
4 BEAVERDALE NE
5 TENNGA NW
11 BEAVERDALE SW
13 TENNGA SW
21 CHATSWORTH NW
22 CHATSWORTH NE
23 CRANDALL NW

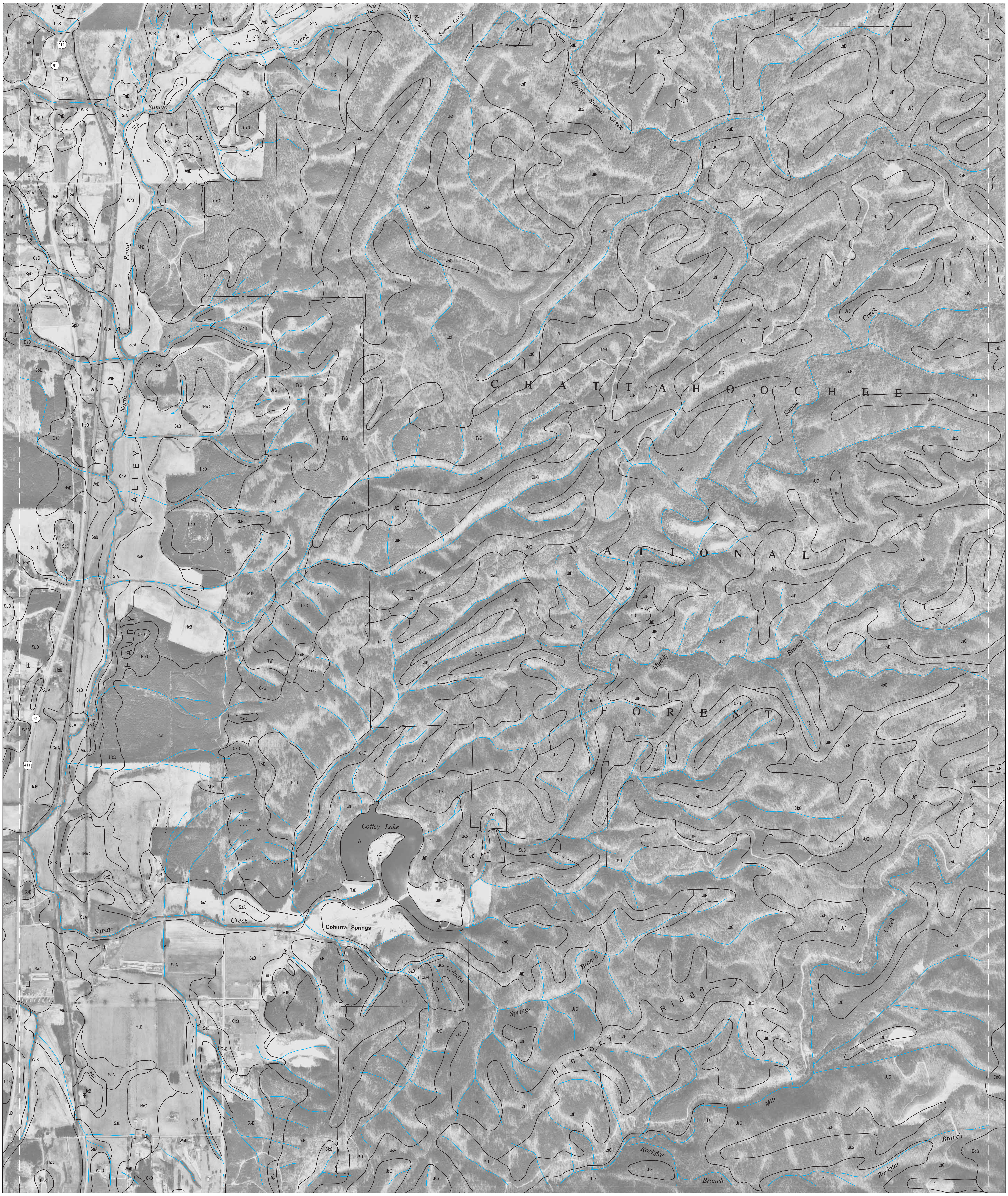
INDEX TO ADJOINING 3.75 MAPS

BEAVERDALE SE, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 12 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

Joins sheet 4, Beaverdale NE
Joins sheet 5, Tennga NW
Joins sheet 6, Tennga NE
Joins sheet 12, Beaverdale SE
Joins sheet 14, Tennga SE

84° 45′00″ 84° 41′15″
34° 56′15″ 34° 56′15″



34° 52′30″ 34° 52′30″
84° 45′00″ 84° 41′15″

Joins sheet 22, Chatsworth NE
Joins sheet 23, Crandall NW
Joins sheet 24, Crandall NE

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North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUARTER QUADRANGLE LOCATION

SCALE 1:12000

0.5 0 0.5
MILES

500 0 500 1000 1500 2000 2500 3000 3500
FEET

0.5 0 0.5
KILOMETERS

4	5	6
12		14
22	23	24

4 BEAVERDALE NE
5 TENNGA NW
6 TENNGA NE
12 BEAVERDALE SE
14 TENNGA SE
22 CHATSWORTH NE
23 CRANDALL NW
24 CRANDALL NE

INDEX TO ADJOINING 3.75 MAPS

TENNGA SW, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 13 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

Joins sheet 5, Tennga NW

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

MURRAY AND WHITFIELD COUNTIES, GEORGIA
TENNGA SE QUADRANGLE
SHEET NUMBER 14 OF 58

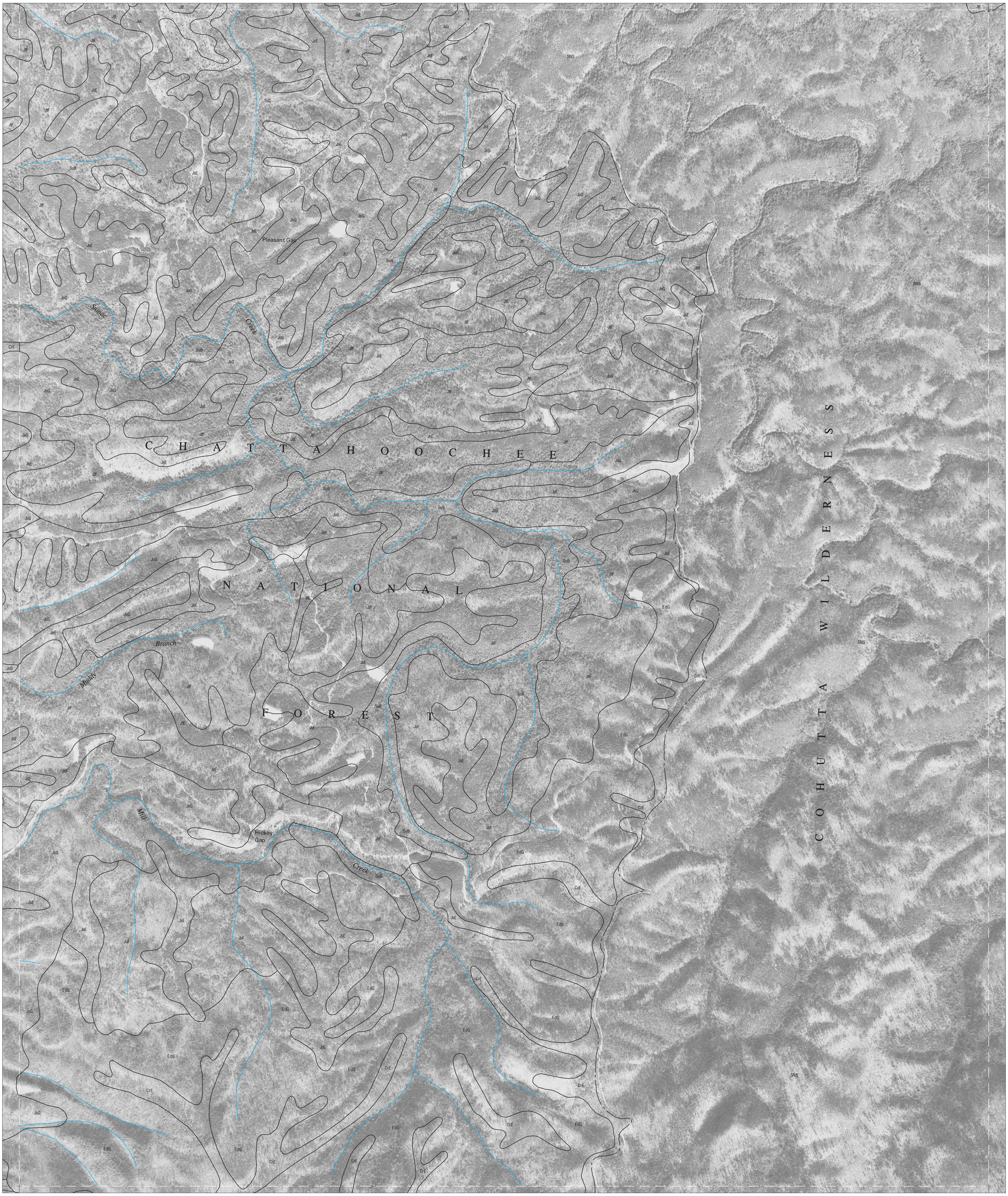
Joins sheet 7, Hemp Top NW

Joins sheet 6, Tennga NE

84° 41′15″ 84° 37′30″

34° 56′15″ 34° 56′15″

Joins sheet 13, Tennga SW



Joins sheet 15, Hemp Top SW

34° 52′30″ 34° 52′30″

84° 41′15″ 84° 37′30″

Joins sheet 23, Crandall NW

Joins sheet 24, Crandall NE

Joins sheet 25, Dyer Gap NW

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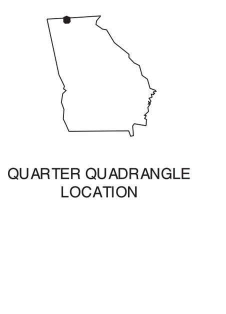
North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH



QUARTER QUADRANGLE LOCATION

SCALE 1:12000

0.5 0 0.5
MILES

500 0 500 1000 1500 2000 2500 3000 3500
FEET

0.5 0 0.5
KILOMETERS

5	6	7
13		15
23	24	25

5 TENNGA NW
6 TENNGA NE
7 HEMP TOP NW
13 TENNGA SW
15 HEMP TOP SW
23 CRANDALL NW
24 CRANDALL NE
25 DYER GAP NW

INDEX TO ADJOINING 3.75 MAPS

TENNGA SE, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 14 OF 58

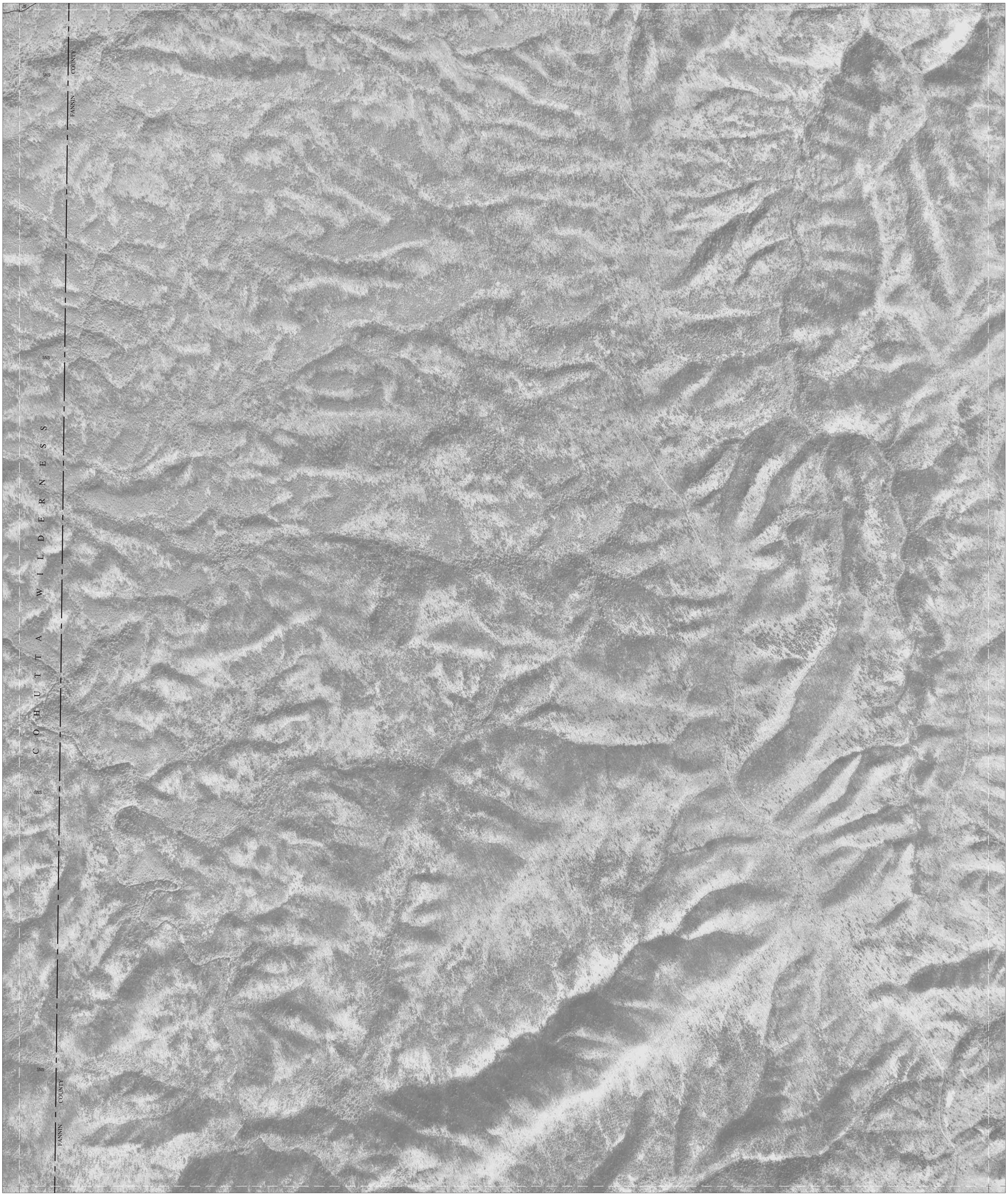
Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

Joins sheet 6, Tennga NE

Joins sheet 7, Hemp Top NW

Joins sheet 14, Tennga SE



Joins sheet 24, Crandall NE

Joins sheet 25, Dyer Gap NW

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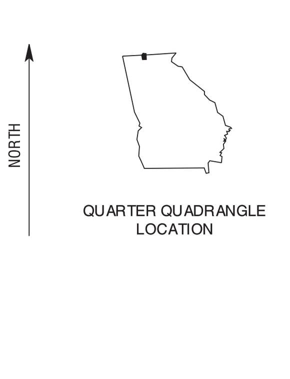
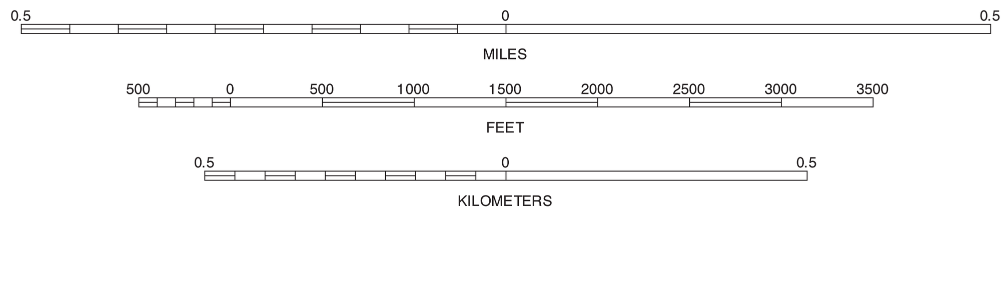
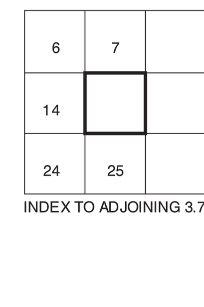
North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



QUARTER QUADRANGLE LOCATION

SCALE 1:12000





6 TENNGA NE
7 HEMP TOP NW
14 TENNGA SE
24 CRANDALL NE
25 DYER GAP NW

INDEX TO ADJOINING 3.75 MAPS

HEMP TOP SW, GEORGIA

3.75 MINUTE SERIES
SHEET NUMBER 15 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

85° 11′15″ | 85° 07′30″
34° 52′30″ | 34° 52′30″

34° 48′45″ | 34° 48′45″
85° 11′15″ | 85° 07′30″

Joins sheet 26, Nickajack Gap SE

Joins sheet 27, Tunnel Hill SW

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North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUARTER QUADRANGLE LOCATION

SCALE 1:12000

0.5 0 0.5
MILES

500 0 500 1000 1500 2000 2500 3000 3500
FEET

0.5 0 0.5
KILOMETERS

17 TUNNEL HILL NW
26 NICKAJACK GAP SE
27 TUNNEL HILL SW

INDEX TO ADJOINING 3.75 MAPS

NICKAJACK GAP NE, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 16 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

Joins sheet 8, Ringgold SE

Joins sheet 16, Nickajack Gap NE

Joins sheet 18, Tunnel Hill NE

Joins sheet 26, Nickajack Gap SE

Joins sheet 27, Tunnel Hill SW

Joins sheet 28, Tunnel Hill SE

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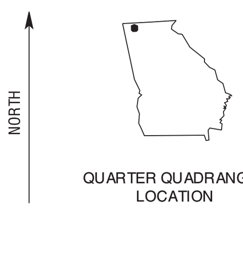
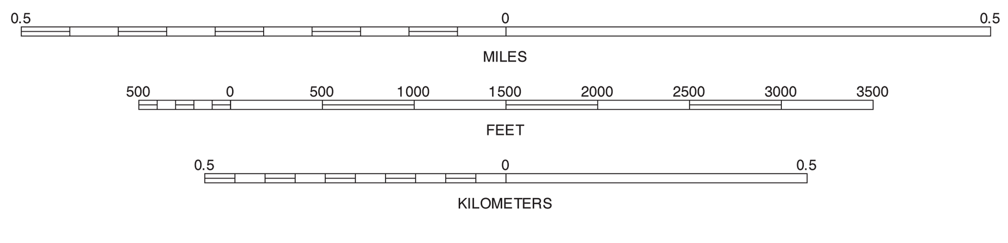
North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



QUARTER QUADRANGLE LOCATION

SCALE 1:12000



		8
16		18
26	27	28

8 RINGGOLD SE
16 NICKAJACK GAP NE
18 TUNNEL HILL NE
26 NICKAJACK GAP SE
27 TUNNEL HILL SW
28 TUNNEL HILL SE

INDEX TO ADJOINING 3.75 MAPS

TUNNEL HILL NW, GEORGIA

3.75 MINUTE SERIES
SHEET NUMBER 17 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

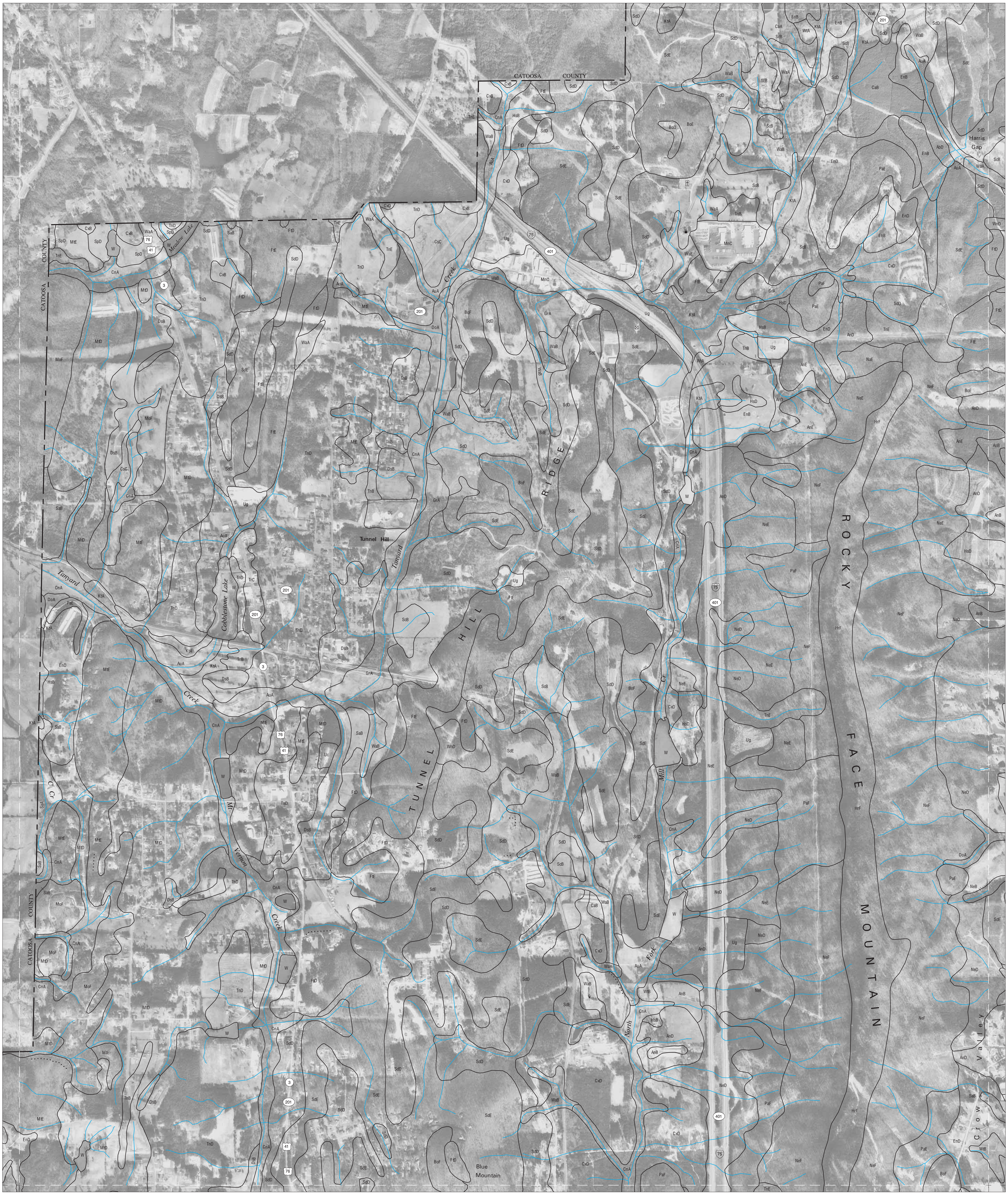
MURRAY AND WHITFIELD COUNTIES, GEORGIA
TUNNEL HILL NE QUADRANGLE
SHEET NUMBER 18 OF 58

Joins sheet 8, Ringgold SE

Joins sheet 9, Cohutta SW

85° 03′45″ | 85° 00′00″

34° 52′30″ | 34° 52′30″



Joins sheet 17, Tunnel Hill NW

Joins sheet 19, Dalton North NW

34° 48′45″ | 34° 48′45″

85° 03′45″ | 85° 00′00″

Joins sheet 28, Tunnel Hill SE

Joins sheet 27, Tunnel Hill SW

Joins sheet 29, Dalton North SW

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North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUARTER QUADRANGLE LOCATION

SCALE 1:12000

0.5 | 0 | 0.5 MILES

500 | 0 | 500 | 1000 | 1500 | 2000 | 2500 | 3000 | 3500 FEET

0.5 | 0 | 0.5 KILOMETERS

	8	9
17		19
27	28	29

8 RINGGOLD SE
9 COHUTTA SW
17 TUNNEL HILL NW
19 DALTON NORTH NW
27 TUNNEL HILL SW
28 TUNNEL HILL SE
29 DALTON NORTH SW

INDEX TO ADJOINING 3.75 MAPS

TUNNEL HILL NE, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 18 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

Joins sheet 8, Ringgold SE

Joins sheet 9, Cohutta SW

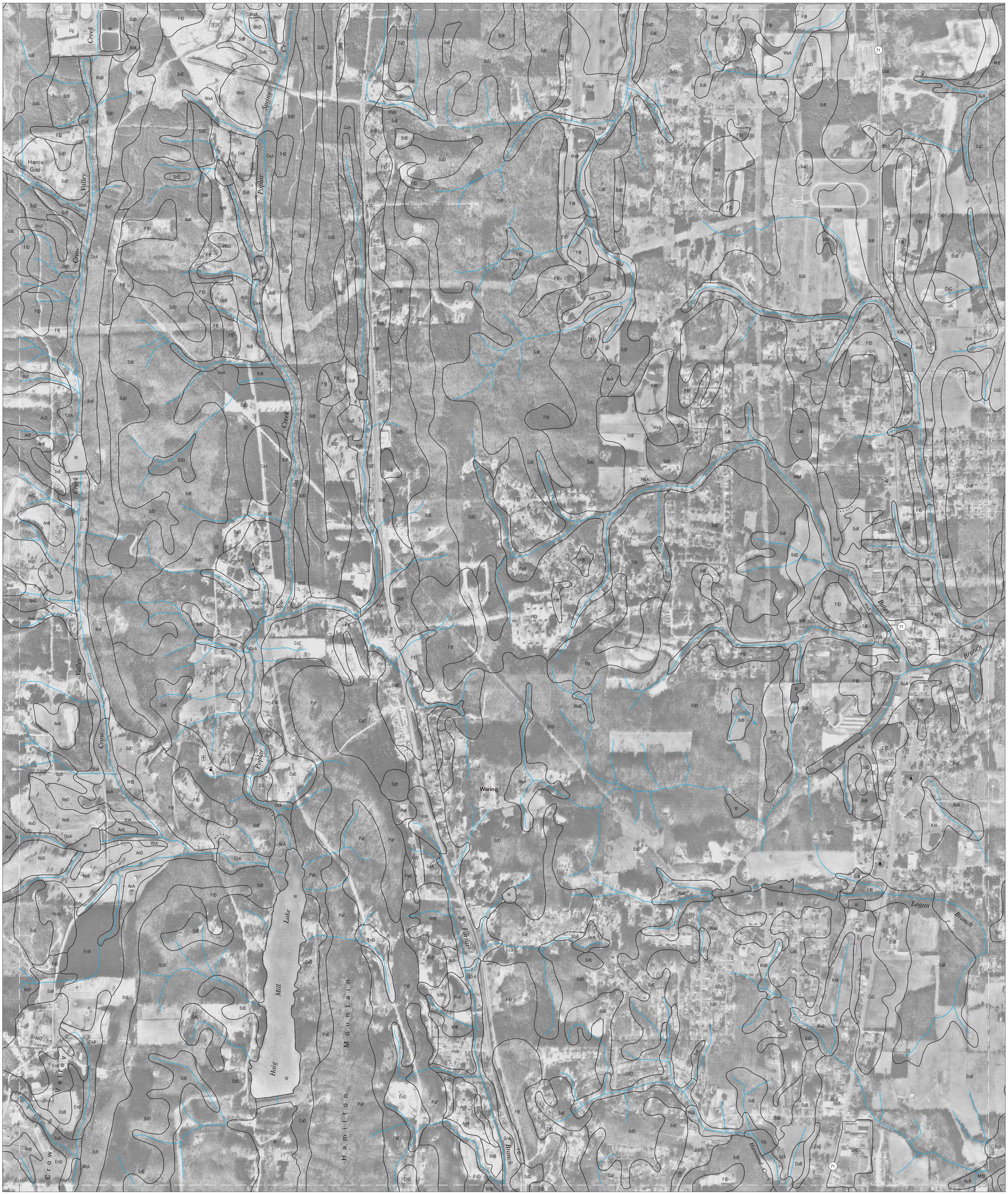
Joins sheet 10, Cohutta SE

85° 00′00″

84° 56′15″

34° 52′30″

34° 52′30″



Joins sheet 18, Tunnel Hill NE

Joins sheet 20, Dalton North NE

34° 48′45″

34° 48′45″

85° 00′00″

84° 56′15″

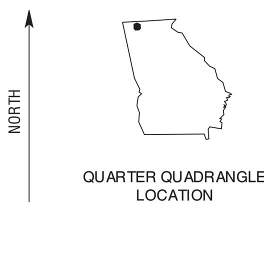
Joins sheet 29, Dalton North SW

Joins sheet 28, Tunnel Hill SE

Joins sheet 30, Dalton North SE

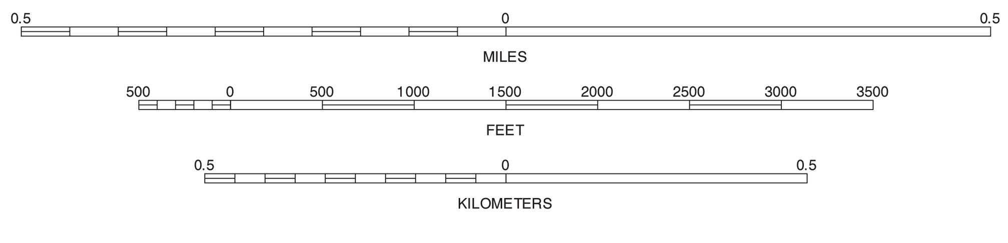
This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service. Base maps are orthophotographs prepared by the U.S. Department of Interior, Geological Survey, from 1993 and 1994 aerial photography. Cultural and hydrography annotation was acquired from the U.S. Department of Interior, Geological Survey.

North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



QUARTER QUADRANGLE LOCATION

SCALE 1:12000



8	9	10
18		20
28	29	30

8 RINGGOLD SE
9 COHUTTA SW
10 COHUTTA SE
18 TUNNEL HILL NE
20 DALTON NORTH NE
28 TUNNEL HILL SE
29 DALTON NORTH SW
30 DALTON NORTH SE

INDEX TO ADJOINING 3.75 MAPS

DALTON NORTH NW, GEORGIA

3.75 MINUTE SERIES
SHEET NUMBER 19 OF 58

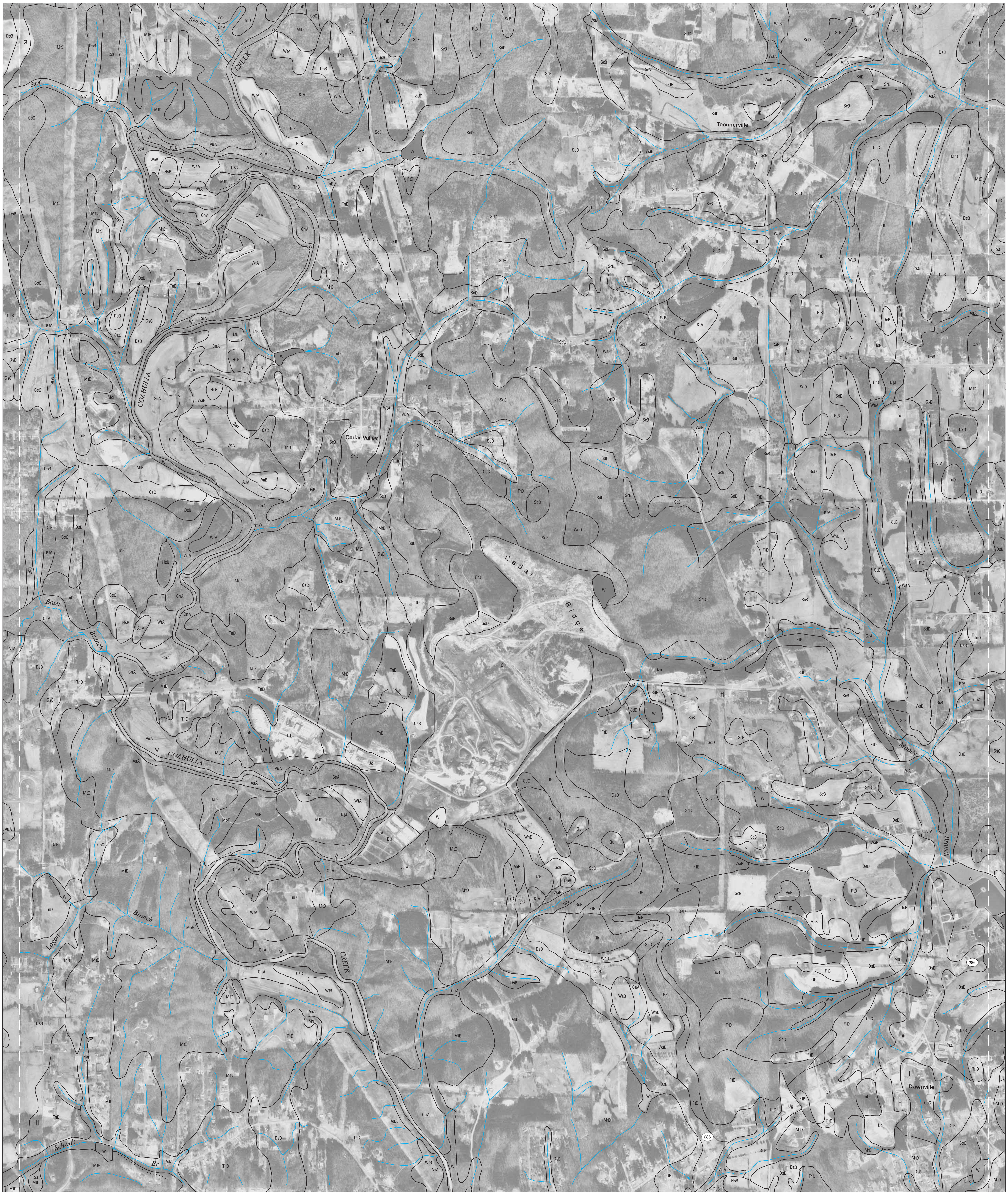
Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

Joins sheet 9, Cohutta SW

Joins sheet 10, Cohutta SE

Joins sheet 11, Beaverdale SW

84° 56′15″ 34° 52′30″ 84° 52′30″ 34° 52′30″



Joins sheet 19, Dalton North NW

Joins sheet 21, Chatsworth NW

34° 48′45″ 84° 56′15″ 34° 48′45″ 84° 52′30″

Joins sheet 29, Dalton North SW

Joins sheet 30, Dalton North SE

Joins sheet 31, Chatsworth SW

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service. Base maps are orthophotographs prepared by the U.S. Department of Interior, Geological Survey, from 1993 and 1994 aerial photography. Cultural and hydrography annotation was acquired from the U.S. Department of Interior, Geological Survey.

North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUARTER QUADRANGLE LOCATION

SCALE 1:12000

MILES: 0.5 0 0.5

FEET: 500 0 500 1000 1500 2000 2500 3000 3500

KILOMETERS: 0.5 0 0.5

9	10	11
19		21
29	30	31

9 COHUTTA SW
10 COHUTTA SE
11 BEAVERDALE SW
19 DALTON NORTH NW
21 CHATSWORTH NW
29 DALTON NORTH SW
30 DALTON NORTH SE
31 CHATSWORTH SW

INDEX TO ADJOINING 3.75 MAPS

DALTON NORTH NE, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 20 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

MURRAY AND WHITFIELD COUNTIES, GEORGIA
CHATSWORTH NW QUADRANGLE
SHEET NUMBER 21 OF 58

Joins sheet 10, Cohutta SE

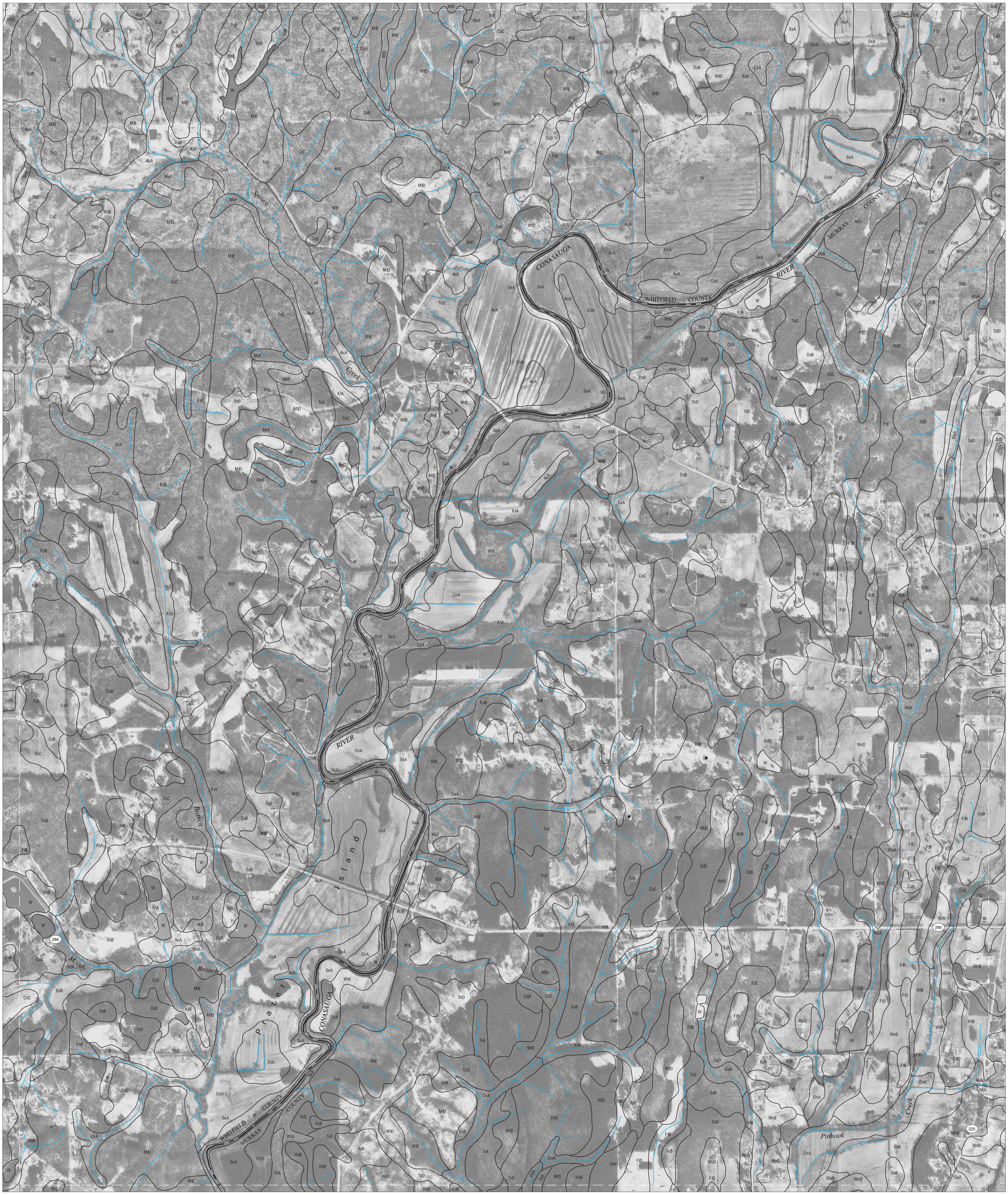
Joins sheet 11, Beaverdale SW

Joins sheet 12, Beaverdale SE

84° 52′30″ 34° 52′30″

84° 48′45″ 34° 52′30″

Joins sheet 20, Dalton North NE



Joins sheet 22, Chatsworth NE

34° 48′45″ 84° 52′30″

34° 48′45″ 84° 48′45″

Joins sheet 30, Dalton North SE

Joins sheet 31, Chatsworth SW

Joins sheet 32, Chatsworth SE

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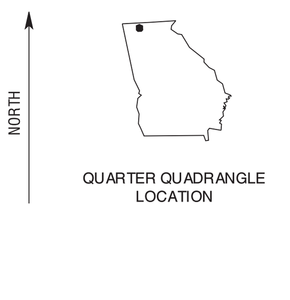
North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH



QUARTER QUADRANGLE LOCATION

SCALE 1:12000

0.5 0 0.5
MILES

500 0 500 1000 1500 2000 2500 3000 3500
FEET

0.5 0 0.5
KILOMETERS

10	11	12
20		22
30	31	32

10 COHUTTA SE
11 BEAVERDALE SW
12 BEAVERDALE SE
20 DALTON NORTH NE
22 CHATSWORTH NE
30 DALTON NORTH SE
31 CHATSWORTH SW
32 CHATSWORTH SE

INDEX TO ADJOINING 3.75 MAPS

CHATSWORTH NW, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 21 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

Joins sheet 11, Beaverdale SW

Joins sheet 12, Beaverdale SE

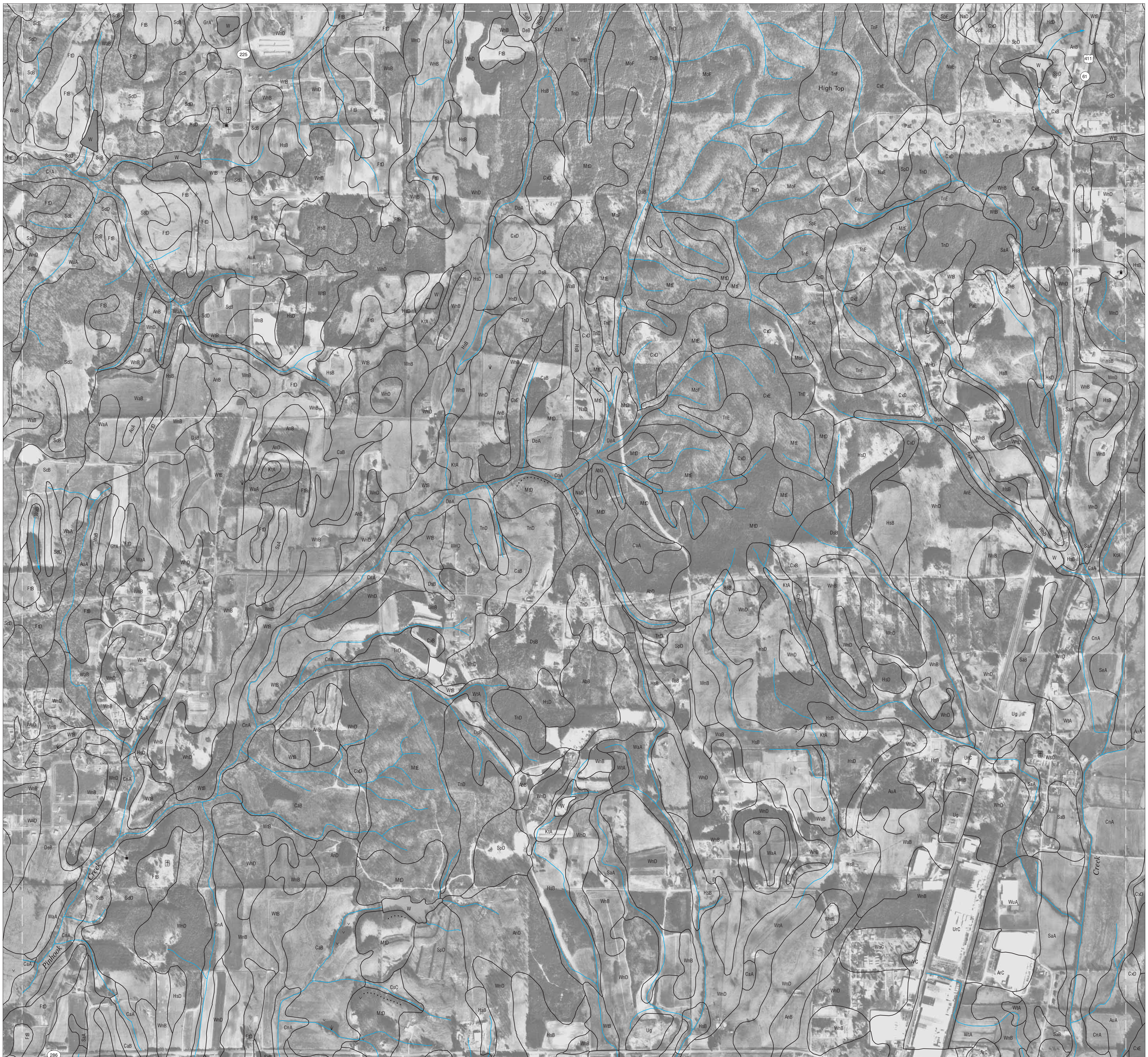
Joins sheet 13, Tennga SW

84° 48′ 45″ 34° 52′ 30″

84° 45′ 00″ 34° 52′ 30″

Joins sheet 21, Chatsworth NW

Joins sheet 23, Crandall NW



34° 48′ 45″ 84° 48′ 45″

34° 48′ 45″ 84° 45′ 00″

Joins sheet 31, Chatsworth SW

Joins sheet 32, Chatsworth SE

Joins sheet 33, Crandall SW

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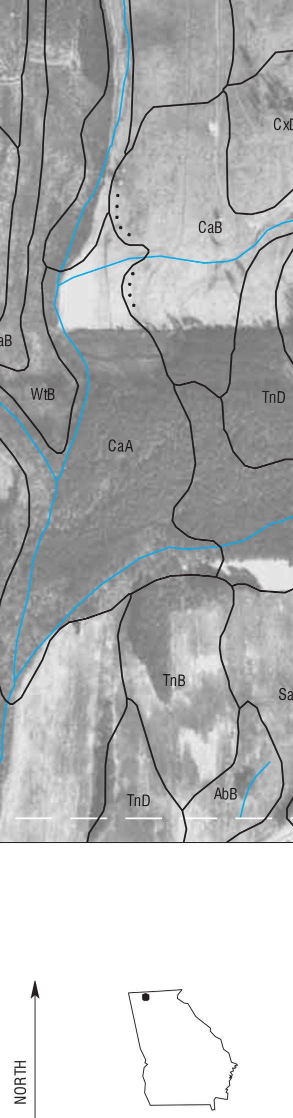
North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



QUARTER QUADRANGLE LOCATION

SCALE 1:12000

0.5 0 0.5 MILES

500 0 500 1000 1500 2000 2500 3000 3500 FEET

0.5 0 0.5 KILOMETERS

11	12	13
21		23
31	32	33

11 BEAVERDALE SW
12 BEAVERDALE SE
13 TENNGA SW
21 CHATSWORTH NW
23 CRANDALL NW
31 CHATSWORTH SW
32 CHATSWORTH SE
33 CRANDALL SW

INDEX TO ADJOINING 3.75 MAPS

CHATSWORTH NE, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 22 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

Joins sheet 12, Beaverdale SE

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

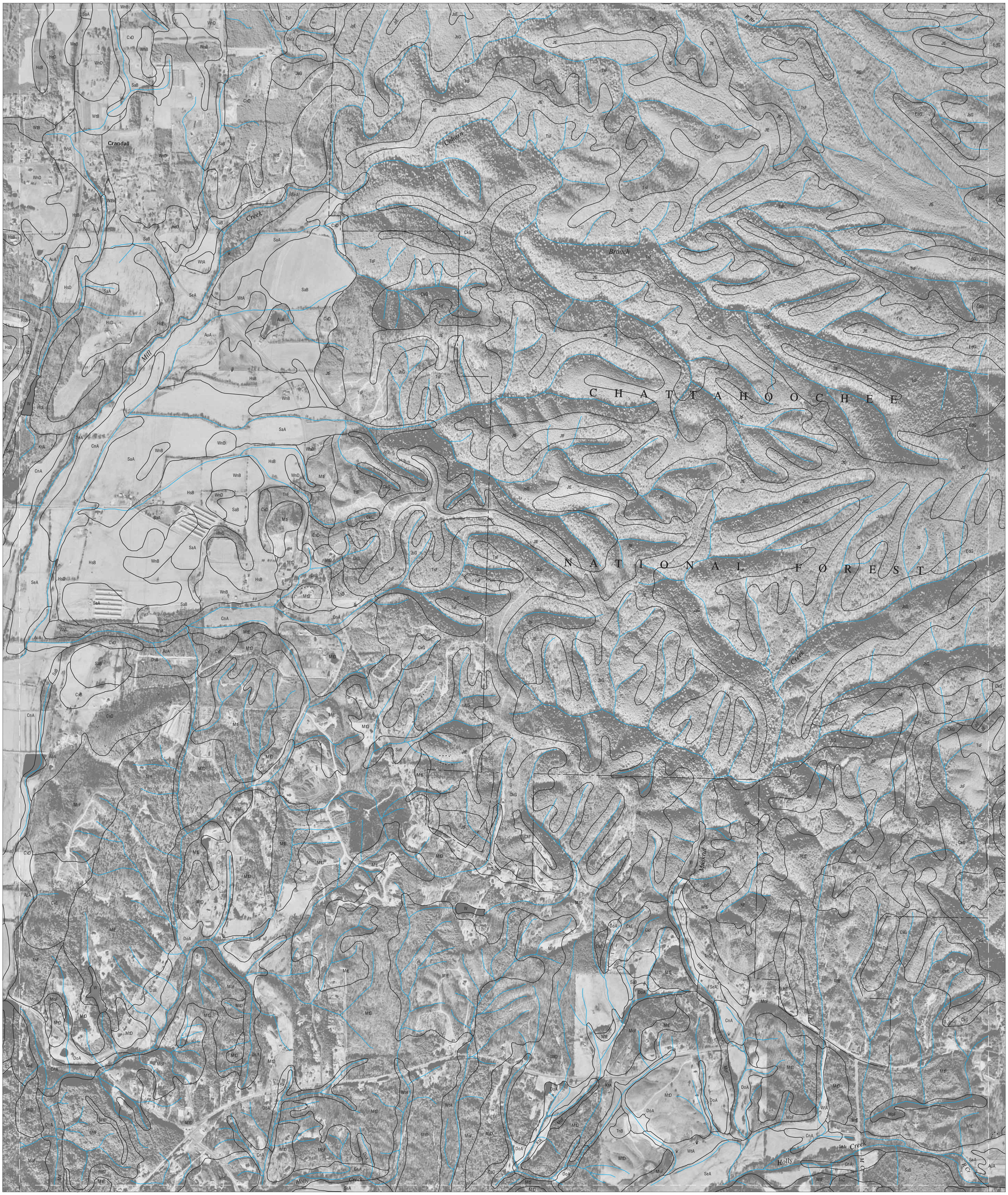
Joins sheet 13, Tennga SW

MURRAY AND WHITFIELD COUNTIES, GEORGIA
CRANDALL NW QUADRANGLE
SHEET NUMBER 23 OF 58

Joins sheet 14, Tennga SE

84° 45′00″ | 84° 41′15″
34° 52′30″ | 34° 52′30″

Joins sheet 22, Chatsworth NE



Joins sheet 24, Crandall NE

34° 48′45″ | 34° 48′45″
84° 45′00″ | 84° 41′15″

Joins sheet 32, Chatsworth SE

Joins sheet 33, Crandall SW

Joins sheet 34, Crandall SE

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North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUARTER QUADRANGLE LOCATION

SCALE 1:12000

0.5 0 0.5
MILES

500 0 500 1000 1500 2000 2500 3000 3500
FEET

0.5 0 0.5
KILOMETERS

12	13	14
22		24
32	33	34

12 BEAVERDALE SE
13 TENNGA SW
14 TENNGA SE
22 CHATSWORTH NE
24 CRANDALL NE
32 CHATSWORTH SE
33 CRANDALL SW
34 CRANDALL SE

INDEX TO ADJOINING 3.75 MAPS

CRANDALL NW, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 23 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

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DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

MURRAY AND WHITFIELD COUNTIES, GEORGIA
CRANDALL NE QUADRANGLE
SHEET NUMBER 24 OF 58

Joins sheet 13, Tennga SW

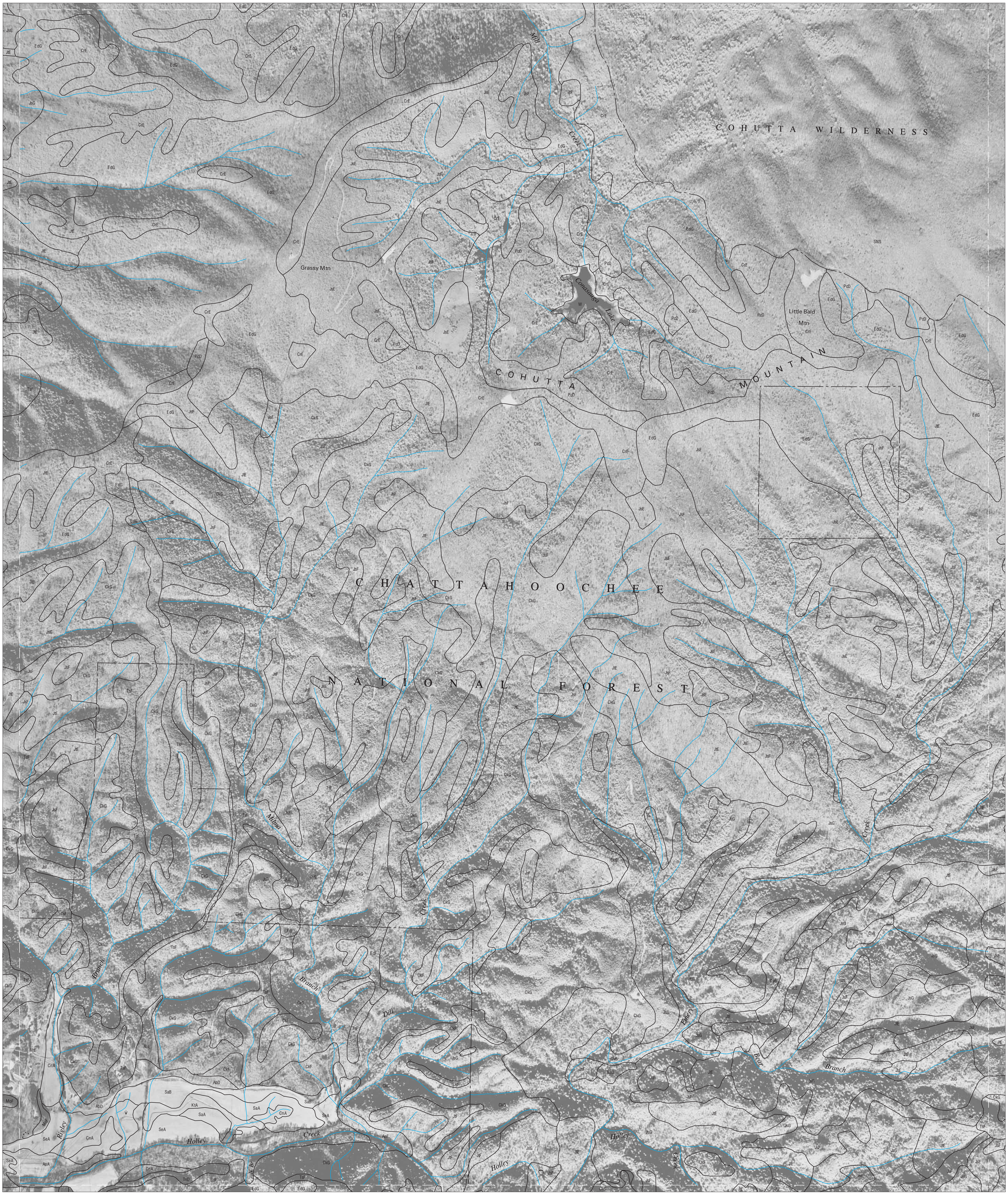
Joins sheet 14, Tennga SE

Joins sheet 15, Hemp Top SW

84° 41′15″ 84° 37′30″

34° 52′30″ 34° 52′30″

Joins sheet 23, Crandall NW



Joins sheet 25, Dyer Gap NW

34° 48′45″ 34° 48′45″

84° 41′15″ 84° 37′30″

Joins sheet 33, Crandall SW

Joins sheet 34, Crandall SE

Joins sheet 35, Dyer Gap SW

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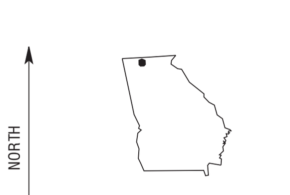
North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



QUARTER QUADRANGLE LOCATION

SCALE 1:12000

0.5 0 0.5
MILES

500 0 500 1000 1500 2000 2500 3000 3500
FEET

0.5 0 0.5
KILOMETERS

13	14	15
23		25
33	34	35

13 TENNGA SW
14 TENNGA SE
15 HEMP TOP SW
23 CRANDALL NW
25 DYER GAP NW
33 CRANDALL SW
34 CRANDALL SE
35 DYER GAP SW

INDEX TO ADJOINING 3.75 MAPS

CRANDALL NE, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 24 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

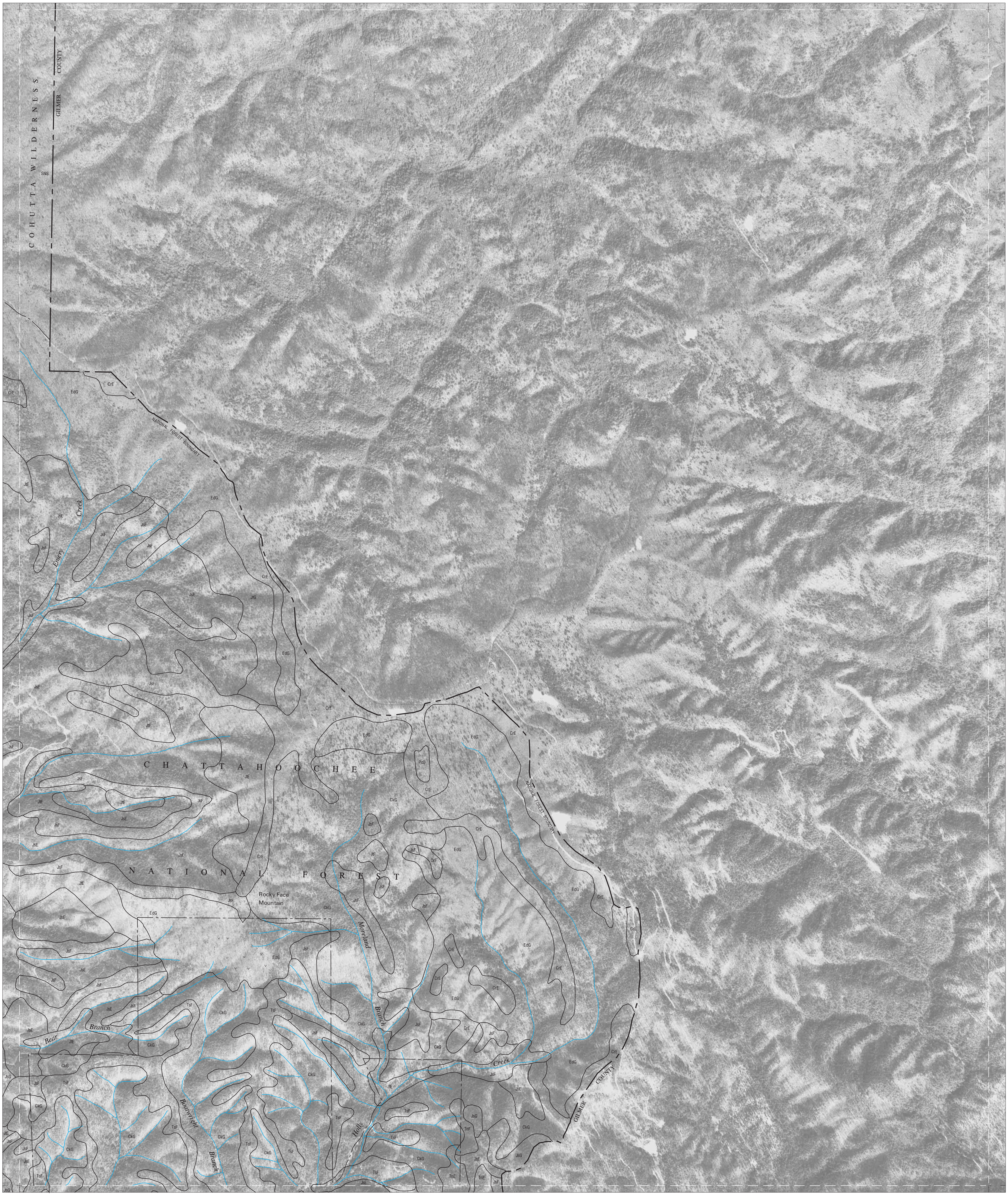
Joins sheet 14, Tennga SE

Joins sheet 15, Hemp Top SW

84° 37′30″ 84° 33′45″

34° 52′30″ 34° 52′30″

Joins sheet 24, Crandall NE



34° 48′45″ 34° 48′45″

84° 37′30″ 84° 33′45″

Joins sheet 35, Dyer Gap SW

Joins sheet 34, Crandall SE

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North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUARTER QUADRANGLE LOCATION

SCALE 1:12000

0.5 0 0.5
MILES

500 0 500 1000 1500 2000 2500 3000 3500
FEET

0.5 0 0.5
KILOMETERS

14	15	
24	■	
34	35	

14 TENNGA SE
15 HEMP TOP SW
24 CRANDALL NE
34 CRANDALL SE
35 DYER GAP SW

INDEX TO ADJOINING 3.75 MAPS

DYER GAP NW, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 25 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

Joins sheet 17, Tunnel Hill NW

Joins sheet 16, Nickajack Gap NE

85°11'15"   85°07'30"

34°48'45"   34°48'45"

Joins sheet 27, Tunnel Hill SW

34°45'00"   34°45'00"

85°11'15"   85°07'30"

Joins sheet 36, Catlett NE

Joins sheet 37, Villanow NW

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North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUARTER QUADRANGLE LOCATION

SCALE 1:12000

0.5 0 0.5 MILES

500 0 500 1000 1500 2000 2500 3000 3500 FEET

0.5 0 0.5 KILOMETERS

16	17	16 NICKAJACK GAP NE 17 TUNNEL HILL NW
	27	27 TUNNEL HILL SW
36	37	36 CATLETT NE 37 VILLANOW NW

INDEX TO ADJOINING 3.75 MAPS

NICKAJACK GAP SE, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 26 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

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DEPARTMENT OF AGRICULTURE
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MURRAY AND WHITFIELD COUNTIES, GEORGIA
TUNNEL HILL SW QUADRANGLE
SHEET NUMBER 27 OF 58

Joins sheet 16, Nickajack Gap NE

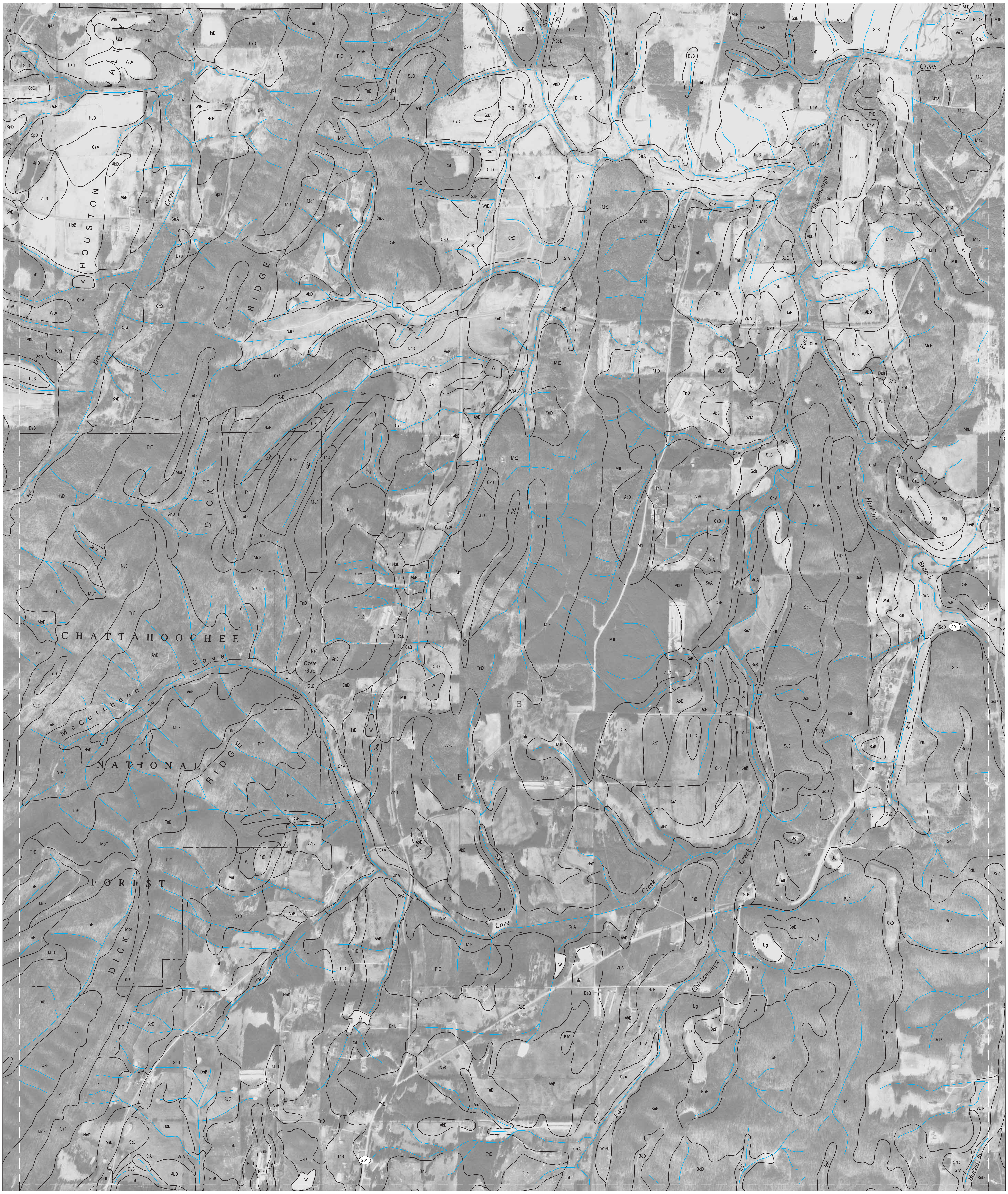
Joins sheet 17, Tunnel Hill NW

Joins sheet 18, Tunnel Hill NE

85° 07′30″

85° 03′45″

34° 48′45″



34° 45′00″

85° 07′30″

85° 03′45″

Joins sheet 26, Nickajack Gap SE

Joins sheet 28, Tunnel Hill SE

Joins sheet 36, Catlett NE

Joins sheet 37, Villanow NW

Joins sheet 38, Villanow NE

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North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUARTER QUADRANGLE LOCATION

SCALE 1:12000

0.5 0 0.5
MILES

500 0 500 1000 1500 2000 2500 3000 3500
FEET

0.5 0 0.5
KILOMETERS

16	17	18
26		28
36	37	38

16 NICKAJACK GAP NE
17 TUNNEL HILL NW
18 TUNNEL HILL NE
26 NICKAJACK GAP SE
28 TUNNEL HILL SE
36 CATLETT NE
37 VILLANOW NW
38 VILLANOW NE

INDEX TO ADJOINING 3.75 MAPS

TUNNEL HILL SW, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 27 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
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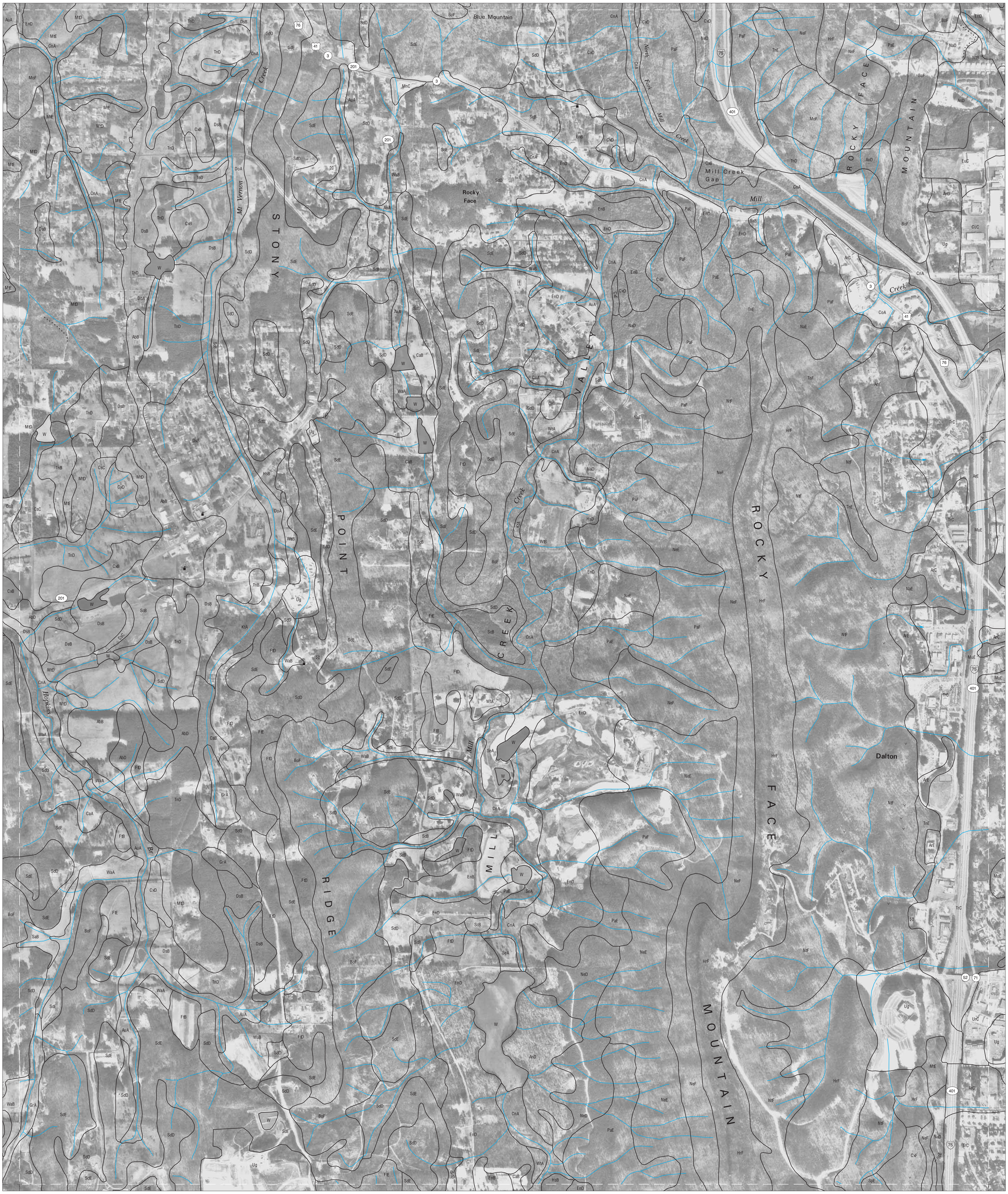
Joins sheet 17, Tunnel Hill NW

Joins sheet 18, Tunnel Hill NE

Joins sheet 19, Dalton North NW

85° 03′ 45″ 85° 00′00″

34° 48′ 45″ 34° 48′ 45″



Joins sheet 27, Tunnel Hill SW

Joins sheet 29, Dalton North SW

34° 45′ 00″ 34° 45′ 00″

85° 03′ 45″ 85° 00′ 00″

Joins sheet 37, Villanow NW

Joins sheet 38, Villanow NE

Joins sheet 39, Dalton South NW

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North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUARTER QUADRANGLE LOCATION

SCALE 1:12000

0.5 0 0.5
MILES

500 0 500 1000 1500 2000 2500 3000 3500
FEET

0.5 0 0.5
KILOMETERS

17	18	19
27		29
37	38	39

INDEX TO ADJOINING 3.75 MAPS

TUNNEL HILL SE, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 28 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

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MURRAY AND WHITFIELD COUNTIES, GEORGIA
DALTON NORTH SW QUADRANGLE
SHEET NUMBER 29 OF 58

Joins sheet 18, Tunnel Hill NE

Joins sheet 19, Dalton North NW

Joins sheet 20, Dalton North NE

85° 00′00″ 84° 56′15″

34° 48′45″ 34° 48′45″

Joins sheet 28, Tunnel Hill SE

Joins sheet 30, Dalton North SE

34° 45′00″ 34° 45′00″

85° 00′00″ 84° 56′15″

Joins sheet 38, Villanow NE

Joins sheet 39, Dalton South NW

Joins sheet 40, Dalton South NE

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North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUARTER QUADRANGLE LOCATION

SCALE 1:12000

0.5 0 0.5
MILES

500 0 500 1000 1500 2000 2500 3000 3500
FEET

0.5 0 0.5
KILOMETERS

18	19	20
28		30
38	39	40

18 TUNNEL HILL NE
19 DALTON NORTH NW
20 DALTON NORTH NE
28 TUNNEL HILL SE
30 DALTON NORTH SE
38 VILLANOW NE
39 DALTON SOUTH NW
40 DALTON SOUTH NE

INDEX TO ADJOINING 3.75 MAPS

DALTON NORTH SW, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 29 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

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NATURAL RESOURCES CONSERVATION SERVICE

MURRAY AND WHITFIELD COUNTIES, GEORGIA
DALTON NORTH SE QUADRANGLE
SHEET NUMBER 30 OF 58

Joins sheet 19, Dalton North NW

Joins sheet 20, Dalton North NE

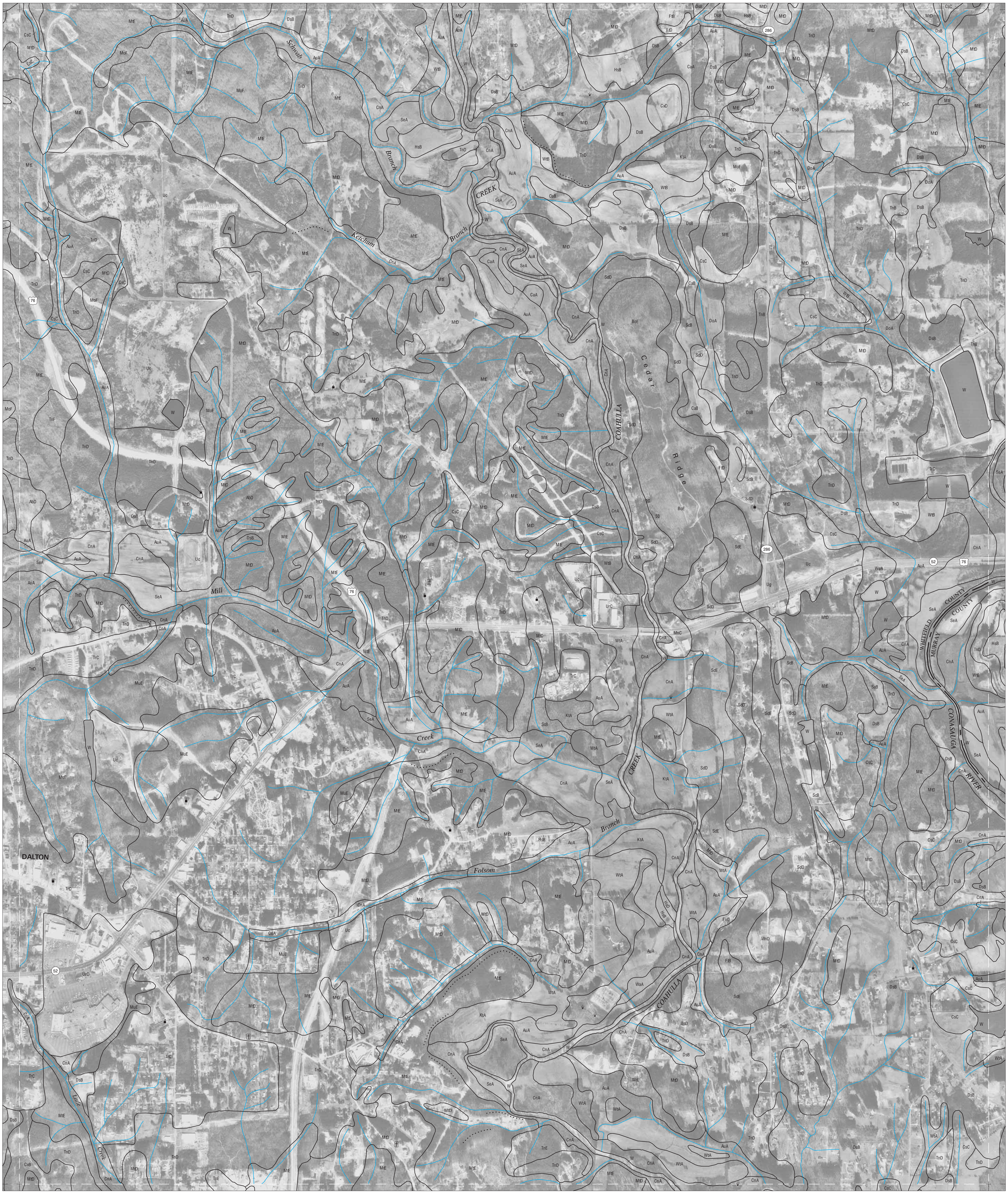
Joins sheet 21, Chatsworth NW

84° 56′15″

84° 52′30″

34° 48′45″

Joins sheet 29, Dalton North SW



Joins sheet 31, Chatsworth SW

34° 45′00″

84° 56′15″

84° 52′30″

Joins sheet 39, Dalton South NW

Joins sheet 40, Dalton South NE

Joins sheet 41, Calhoun NE NW

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service. Base maps are orthophotographs prepared by the U.S. Department of Interior, Geological Survey, from 1993 and 1994 aerial photography. Cultural and hydrography annotation was acquired from the U.S. Department of Interior, Geological Survey.

North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUARTER QUADRANGLE LOCATION

SCALE 1:12000

0.5 0 0.5
MILES

500 0 500 1000 1500 2000 2500 3000 3500
FEET

0.5 0 0.5
KILOMETERS

19	20	21
29		31
39	40	41

19 DALTON NORTH NW
20 DALTON NORTH NE
21 CHATSWORTH NW
29 DALTON NORTH SW
31 CHATSWORTH SW
39 DALTON SOUTH NW
40 DALTON SOUTH NE
41 CALHOUN NE NW

INDEX TO ADJOINING 3.75 MAPS

DALTON NORTH SE, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 30 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

Joins sheet 20, Dalton North NE

Joins sheet 21, Chatsworth NW

Joins sheet 22, Chatsworth NE

84° 52′30″ 84° 48′45″

34° 48′45″ 34° 48′45″

Joins sheet 30, Dalton North SE

Joins sheet 32, Chatsworth SE

34° 45′00″ 34° 45′00″

84° 52′30″ 84° 48′45″

Joins sheet 40, Dalton South NE

Joins sheet 41, Calhoun NE NW

Joins sheet 42, Calhoun NE NE

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service. Base maps are orthophotographs prepared by the U.S. Department of Interior, Geological Survey, from 1993 and 1994 aerial photography. Cultural and hydrography annotation was acquired from the U.S. Department of Interior, Geological Survey.

North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUARTER QUADRANGLE LOCATION

SCALE 1:12000

0.5 0 0.5
MILES

500 0 500 1000 1500 2000 2500 3000 3500
FEET

0.5 0 0.5
KILOMETERS

20	21	22
30		32
40	41	42

20 DALTON NORTH NE
21 CHATSWORTH NW
22 CHATSWORTH NE
30 DALTON NORTH SE
32 CHATSWORTH SE
40 DALTON SOUTH NE
41 CALHOUN NE NW
42 CALHOUN NE NE

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CHATSWORTH SW, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 31 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

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NATURAL RESOURCES CONSERVATION SERVICE

MURRAY AND WHITFIELD COUNTIES, GEORGIA
CHATSWORTH SE QUADRANGLE
SHEET NUMBER 32 OF 58

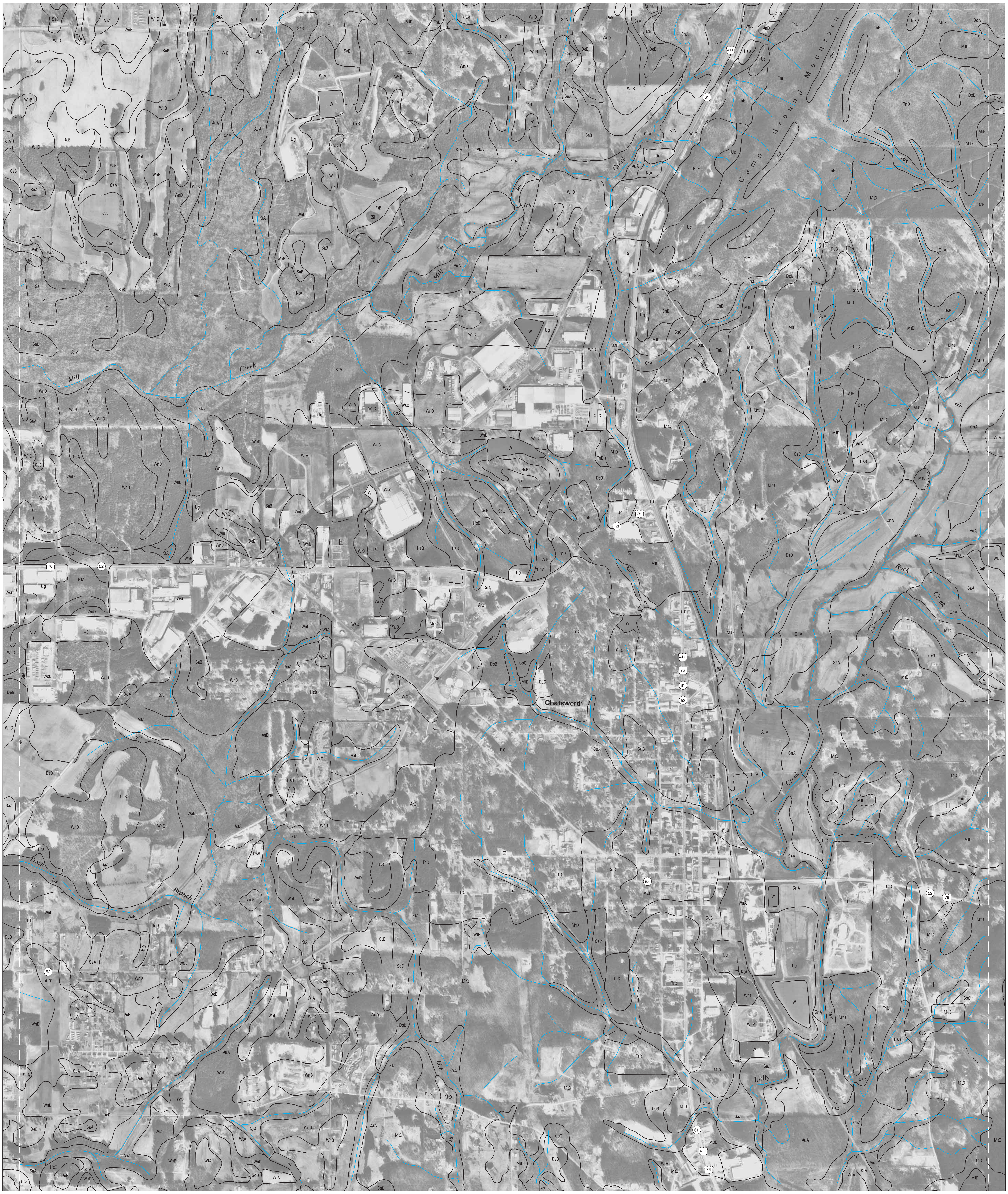
Joins sheet 21, Chatsworth NW

Joins sheet 22, Chatsworth NE

Joins sheet 23, Crandall NW

84° 48′45″ | 84° 45′00″

34° 48′45″



Joins sheet 31, Chatsworth SW

Joins sheet 33, Crandall SW

34° 45′00″

84° 48′45″ | 84° 45′00″

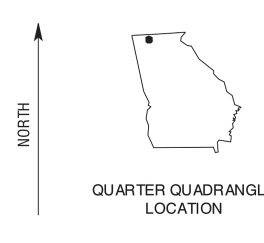
Joins sheet 41, Calhoun NE NW

Joins sheet 42, Calhoun NE NE

Joins sheet 43, Ramhurst NW

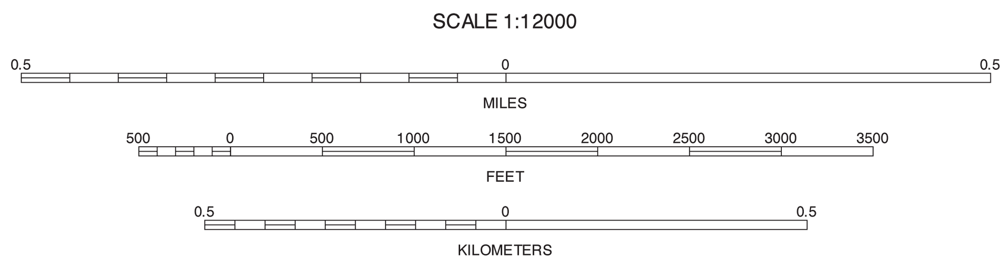
This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service. Base maps are orthophotographs prepared by the U.S. Department of Interior, Geological Survey, from 1993 and 1994 aerial photography. Cultural and hydrography annotation was acquired from the U.S. Department of Interior, Geological Survey.

North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



QUARTER QUADRANGLE LOCATION

SCALE 1:12000



21	22	23
31		33
41	42	43

21 CHATSWORTH NW
22 CHATSWORTH NE
23 CRANDALL NW
31 CHATSWORTH SW
33 CRANDALL SW
41 CALHOUN NE NW
42 CALHOUN NE NE
43 RAMHURST NW

INDEX TO ADJOINING 3.75 MAPS

CHATSWORTH SE, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 32 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

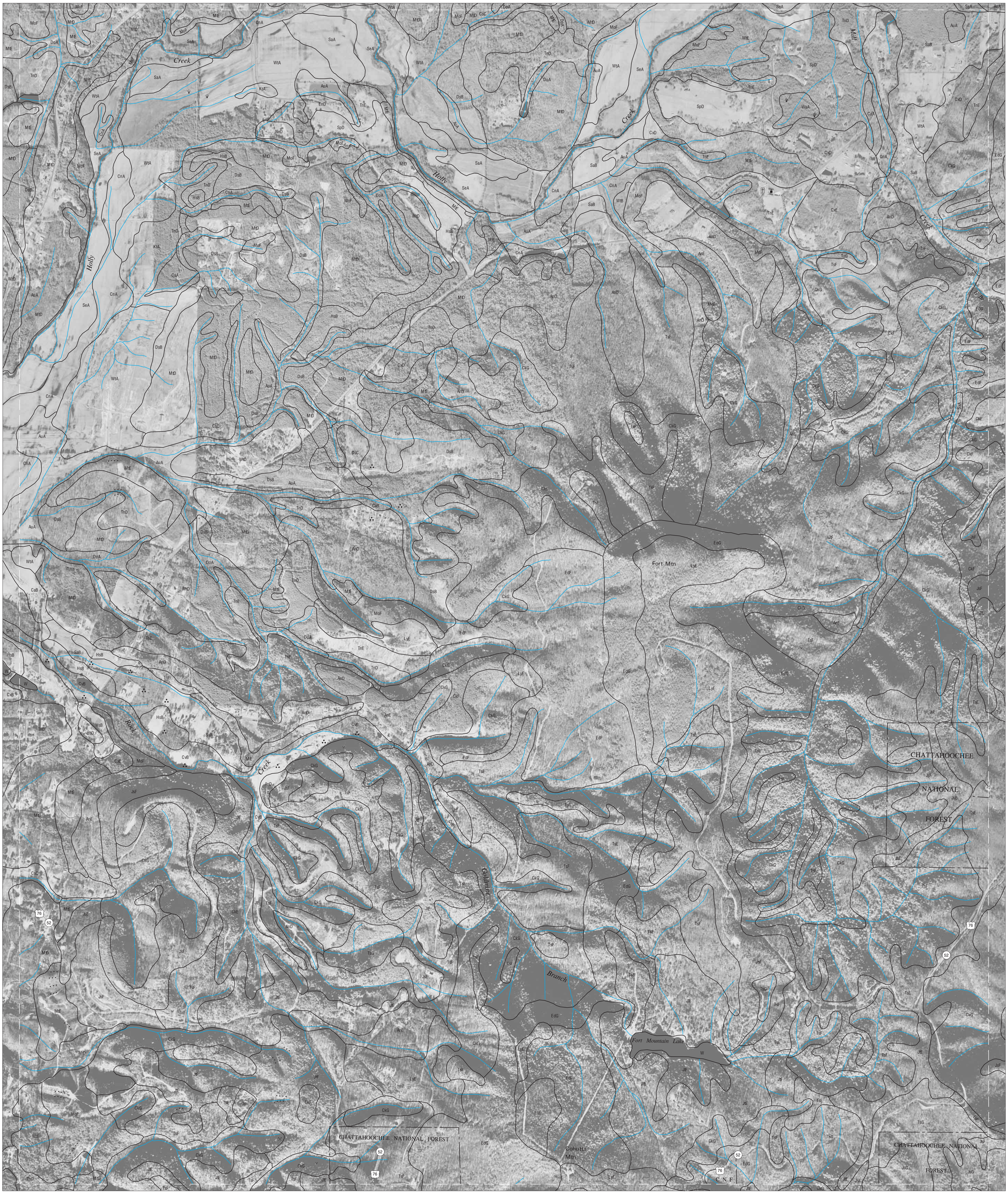
UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

MURRAY AND WHITFIELD COUNTIES, GEORGIA
CRANDALL SW QUADRANGLE
SHEET NUMBER 33 OF 58

Joins sheet 22, Chatsworth NE

Joins sheet 23, Crandall NW

Joins sheet 24, Crandall NE



Joins sheet 32, Chatsworth SE

Joins sheet 34, Crandall SE

Joins sheet 42, Calhoun NE NE

Joins sheet 43, Ramhurst NW

Joins sheet 44, Ramhurst NE

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North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

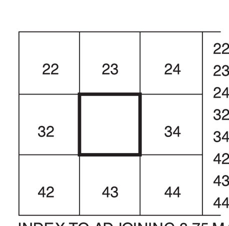
QUARTER QUADRANGLE LOCATION

SCALE 1:12000

0.5 0 0.5
MILES

500 0 500 1000 1500 2000 2500 3000 3500
FEET

0.5 0 0.5
KILOMETERS



22 CHATSWORTH NE
23 CRANDALL NW
24 CRANDALL NE
32 CHATSWORTH SE
34 CRANDALL SE
42 CALHOUN NE NE
43 RAMHURST NW
44 RAMHURST NE

INDEX TO ADJOINING 3.75 MAPS

CRANDALL SW, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 33 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

MURRAY AND WHITFIELD COUNTIES, GEORGIA
CRANDALL SE QUADRANGLE
SHEET NUMBER 34 OF 58

Joins sheet 23, Crandall NW

Joins sheet 24, Crandall NE

Joins sheet 25, Dyer Gap NW

84° 41′15″

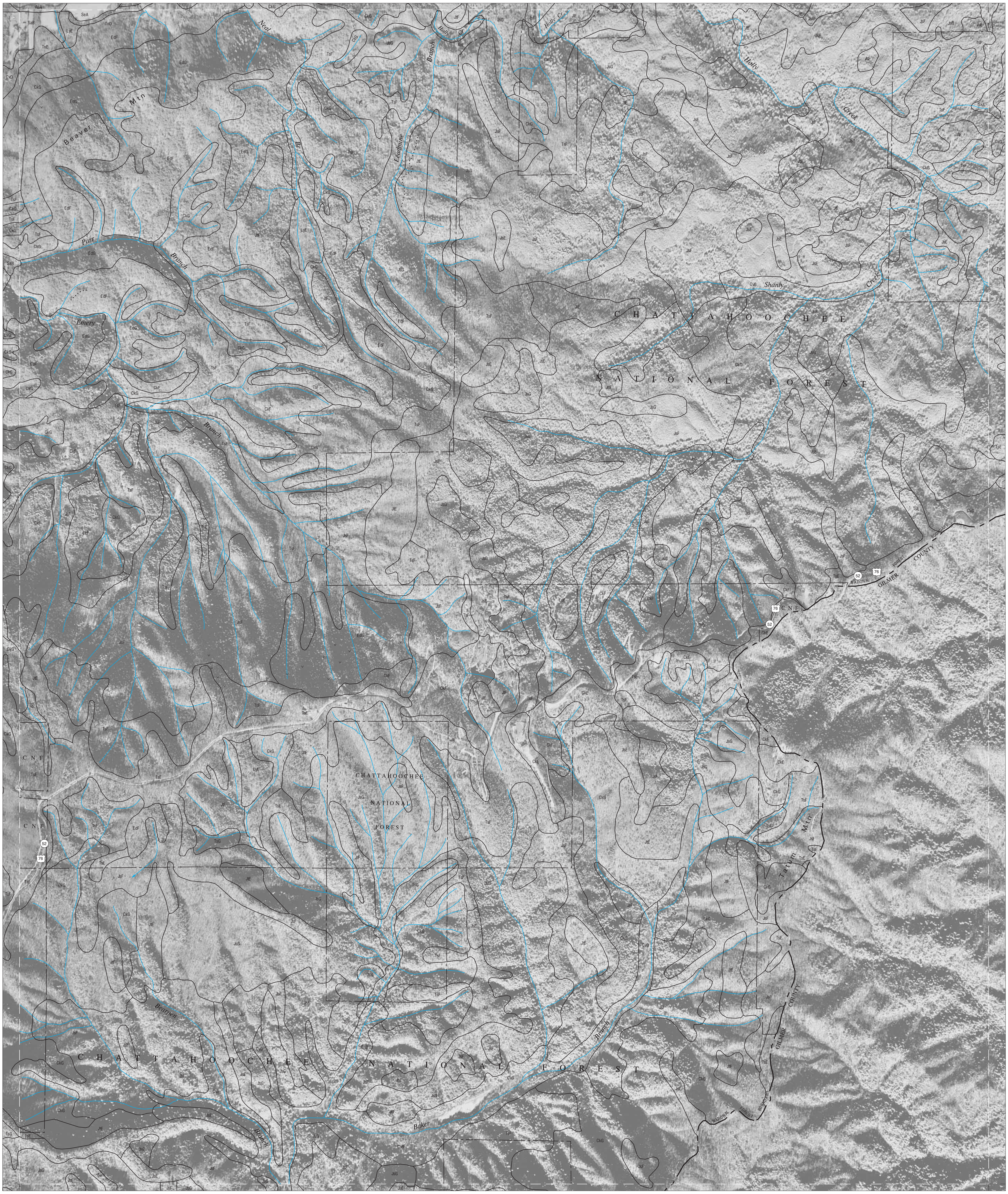
84° 37′30″

34° 48′45″

34° 48′45″

Joins sheet 33, Crandall SW

Joins sheet 35, Dyer Gap SW



34° 45′00″

34° 45′00″

84° 41′15″

84° 37′30″

Joins sheet 43, Ramhurst NW

Joins sheet 44, Ramhurst NE

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North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUARTER QUADRANGLE LOCATION

SCALE 1:12000

MILES: 0.5 — 0 — 0.5

FEET: 500 — 0 — 500 — 1000 — 1500 — 2000 — 2500 — 3000 — 3500

KILOMETERS: 0.5 — 0 — 0.5

23	24	25
33		35
43	44	

23 CRANDALL NW
24 CRANDALL NE
25 DYER GAP NW
33 CRANDALL SW
35 DYER GAP SW
43 RAMHURST NW
44 RAMHURST NE

INDEX TO ADJOINING 3.75 MAPS

CRANDALL SE, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 34 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

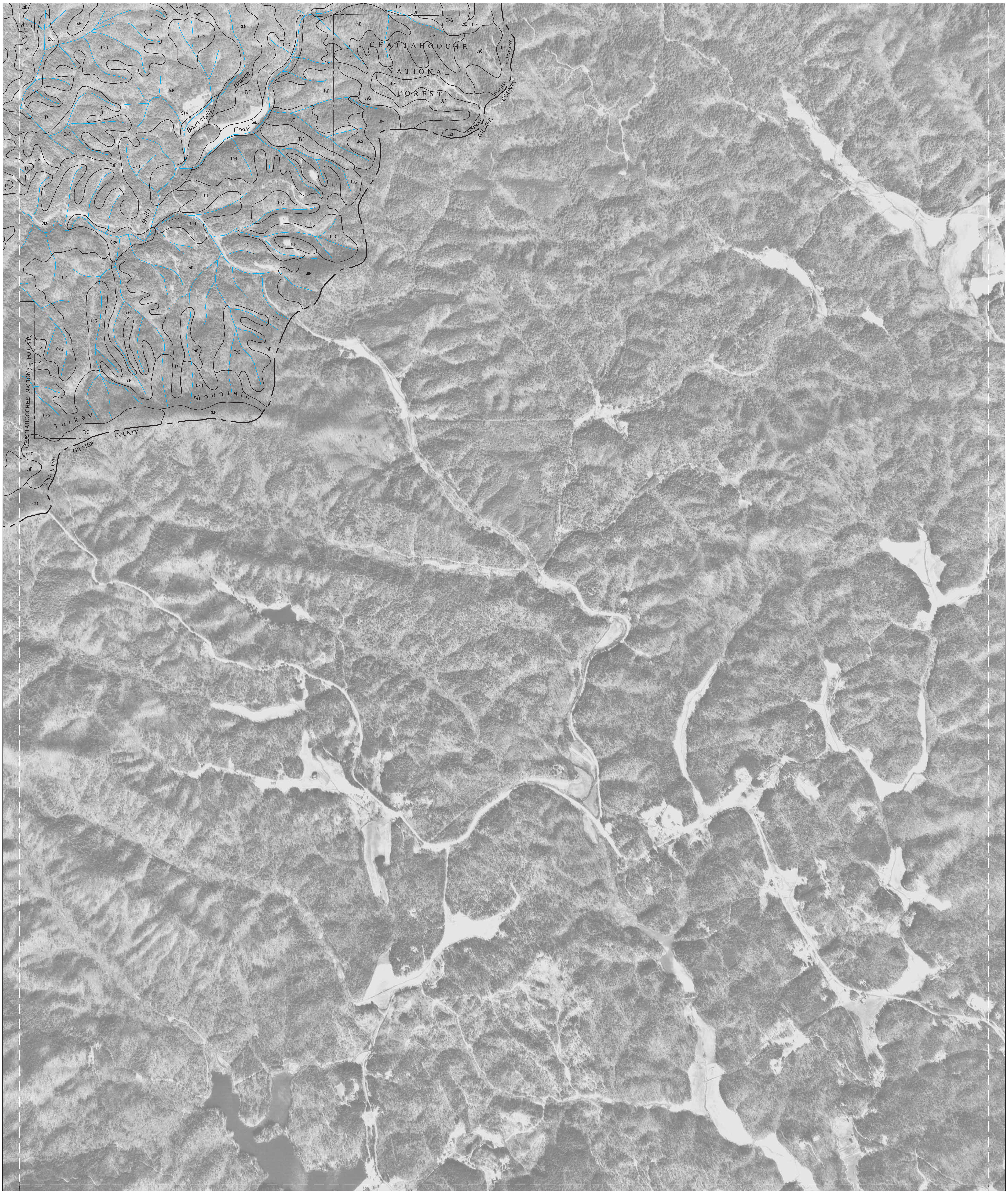
Joins sheet 24, Crandall NE

Joins sheet 25, Dyer Gap NW

84° 37′30″ 84° 33′45″

34° 48′45″ 34° 48′45″

Joins sheet 34, Crandall SE



34° 45′00″ 34° 45′00″

84° 37′30″ 84° 33′45″

Joins sheet 44, Ramhurst NE

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service. Base maps are orthophotographs prepared by the U.S. Department of Interior, Geological Survey, from 1993 and 1994 aerial photography. Cultural and hydrography annotation was acquired from the U.S. Department of Interior, Geological Survey.

North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUARTER QUADRANGLE LOCATION

SCALE 1:12000

0.5 0 0.5
MILES

500 0 500 1000 1500 2000 2500 3000 3500
FEET

0.5 0 0.5
KILOMETERS

24	25	
34		
44		

24 CRANDALL NE
25 DYER GAP NW
34 CRANDALL SE
44 RAMHURST NE

INDEX TO ADJOINING 3.75 MAPS

DYER GAP SW, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 35 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

Joins sheet 26, Nickajack Gap SE
Joins sheet 27, Tunnel Hill SW

Joins sheet 37, Villanow NW

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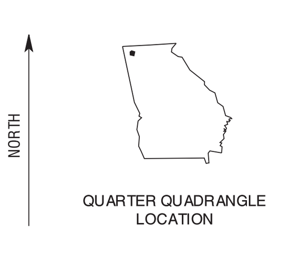
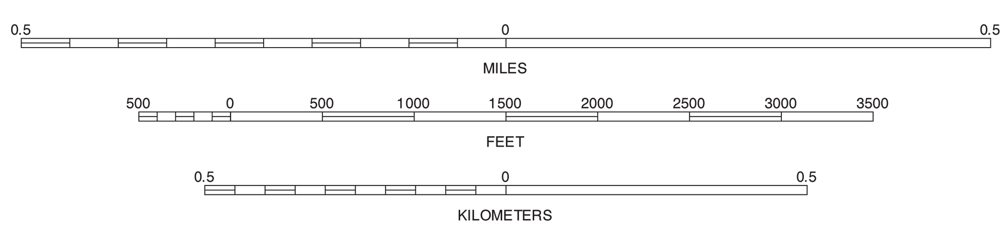
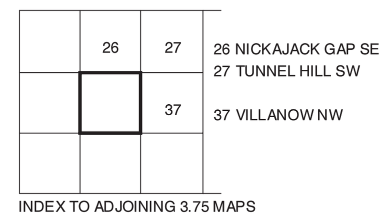
North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



SCALE 1:12000





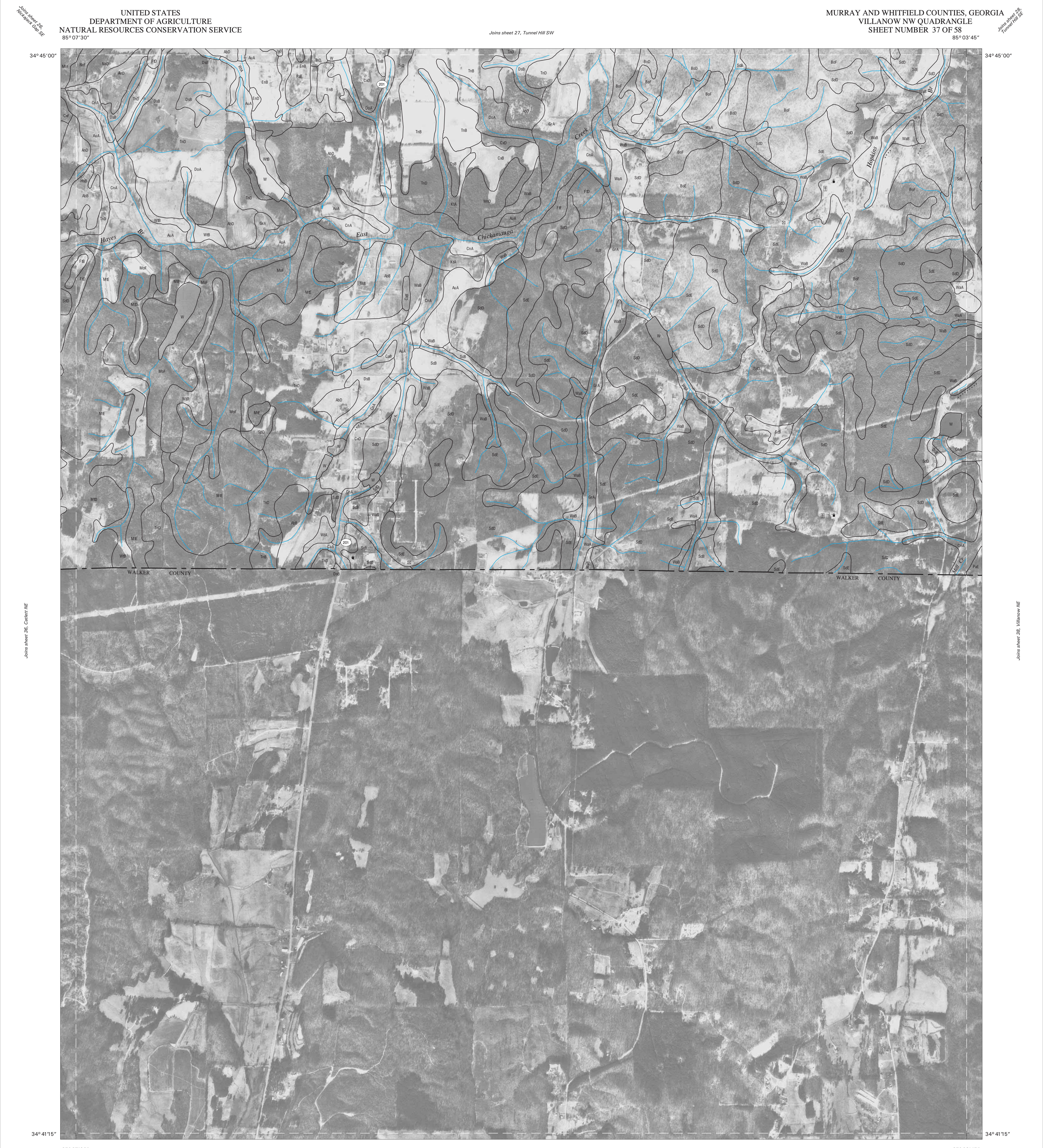
CATLETT NE, GEORGIA

3.75 MINUTE SERIES
SHEET NUMBER 36 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

MURRAY AND WHITFIELD COUNTIES, GEORGIA
VILLANOW NW QUADRANGLE
SHEET NUMBER 37 OF 58



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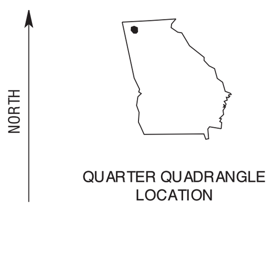
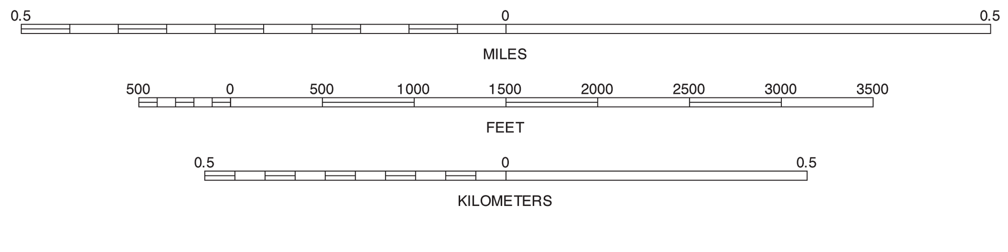
North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



QUARTER QUADRANGLE LOCATION

SCALE 1:12000



26	27	28
36		38
		45

26 NICKAJACK GAP SE
27 TUNNEL HILL SW
28 TUNNEL HILL SE
36 CATLETT NE
38 VILLANOW NE
45 VILLANOW SE

INDEX TO ADJOINING 3.75 MAPS

VILLANOW NW, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 37 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

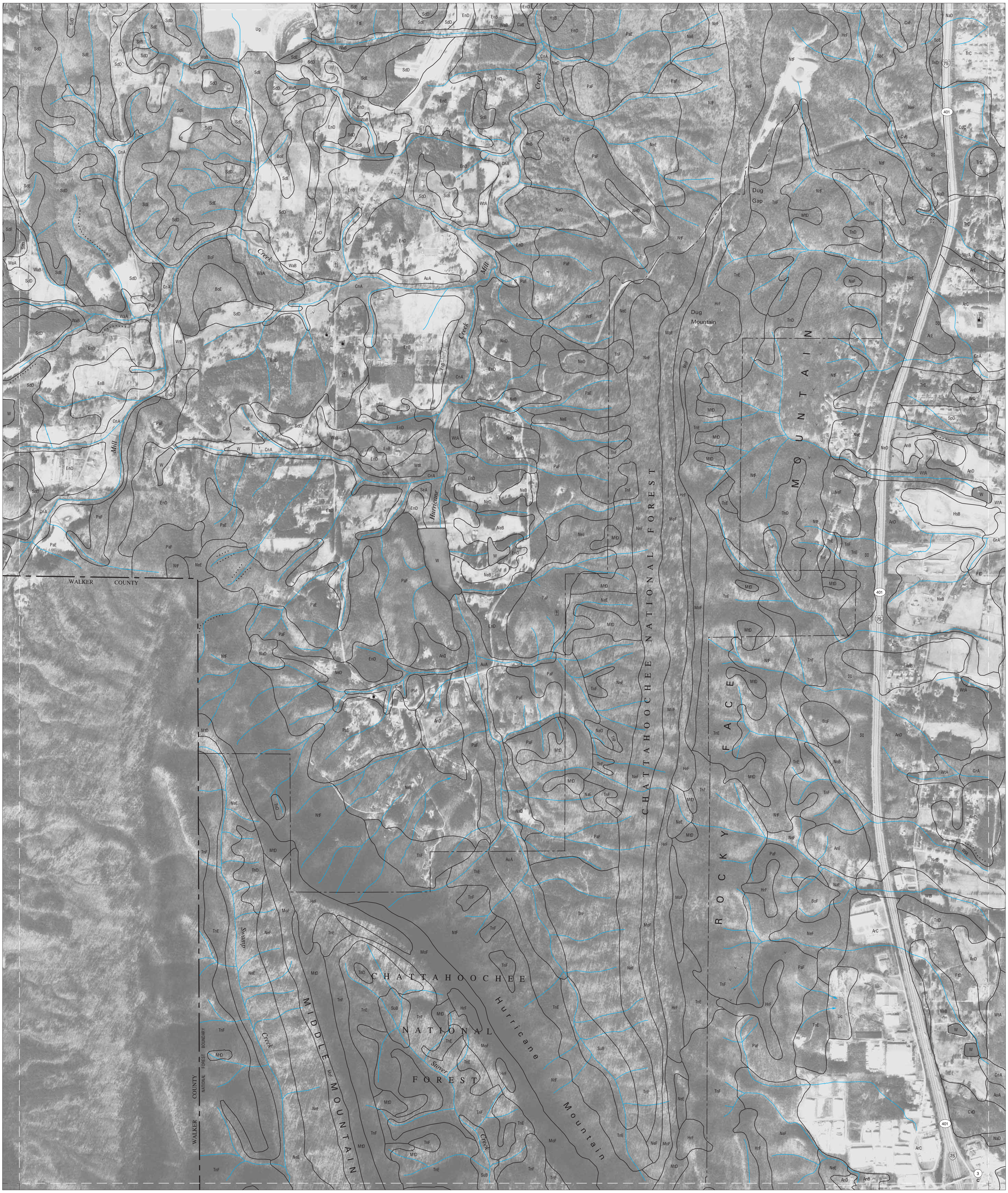
Joins sheet 27, Tunnel Hill SW

Joins sheet 28, Tunnel Hill SE

Joins sheet 29, Dalton North SW

85° 03′45″ — 85° 00′00″

34° 45′00″



Joins sheet 37, Villanow NW

Joins sheet 39, Dalton South NW

34° 41′15″

85° 03′45″ — 85° 00′00″

Joins sheet 45, Villanow SE

Joins sheet 46, Dalton South SW

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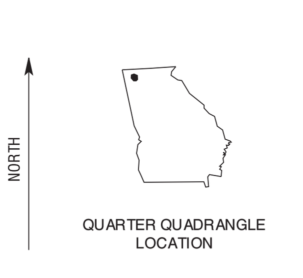
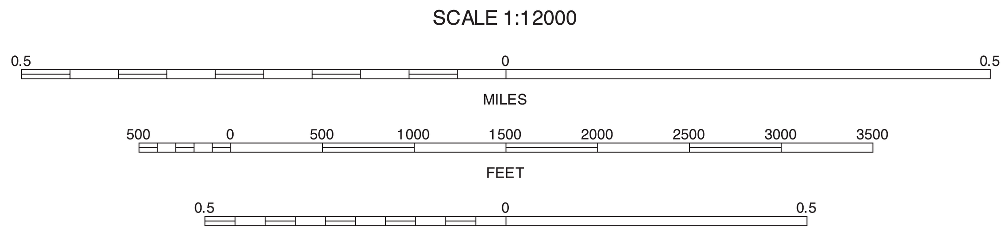
North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



QUARTER QUADRANGLE LOCATION

SCALE 1:12000



27	28	29
37		39
	45	46

27 TUNNEL HILL SW
28 TUNNEL HILL SE
29 DALTON NORTH SW
37 VILLANOW NW
39 DALTON SOUTH NW
45 VILLANOW SE
46 DALTON SOUTH SW

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VILLANOW NE, GEORGIA

3.75 MINUTE SERIES
SHEET NUMBER 38 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

MURRAY AND WHITFIELD COUNTIES, GEORGIA
DALTON SOUTH NW QUADRANGLE
SHEET NUMBER 39 OF 58

Joins sheet 28, Tunnel Hill SE

Joins sheet 29, Dalton North SW

Joins sheet 30, Dalton North SE

85° 00′00″ 84° 56′15″

34° 45′00″ 34° 45′00″

Joins sheet 38, Villanow NE

Joins sheet 40, Dalton South NE

34° 41′15″ 34° 41′15″

85° 00′00″ 84° 56′15″

Joins sheet 45, Villanow SE

Joins sheet 46, Dalton South SW

Joins sheet 47, Dalton South SE

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North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUARTER QUADRANGLE LOCATION

SCALE 1:12000

0.5 0 0.5
MILES

500 0 500 1000 1500 2000 2500 3000 3500
FEET

0.5 0 0.5
KILOMETERS

28	29	30
38		40
45	46	47

28 TUNNEL HILL SE
29 DALTON NORTH SW
30 DALTON NORTH SE
38 VILLANOW NE
40 DALTON SOUTH NE
45 VILLANOW SE
46 DALTON SOUTH SW
47 DALTON SOUTH SE

INDEX TO ADJOINING 3.75 MAPS

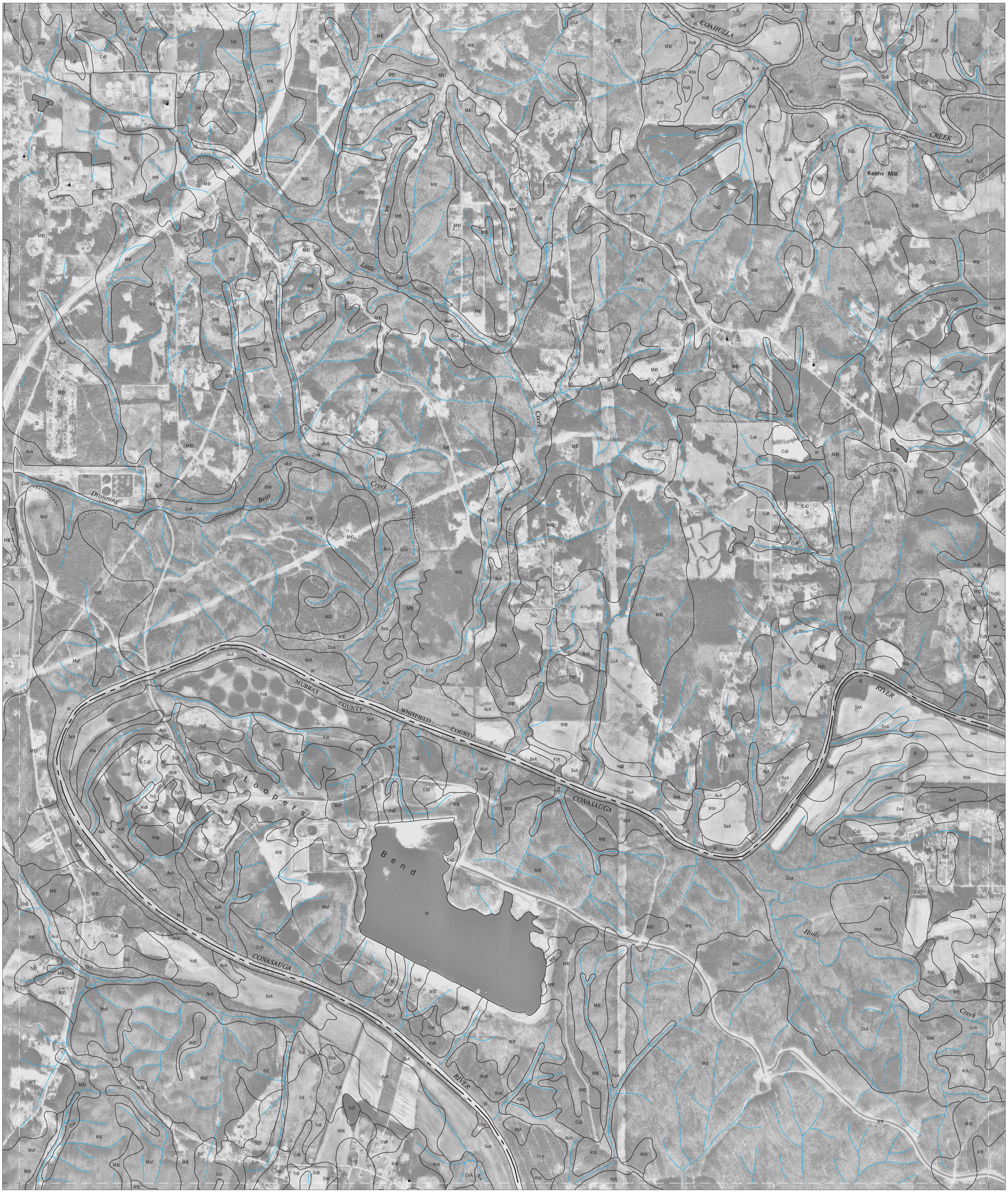
DALTON SOUTH NW, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 39 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

Joins sheet 29, Dalton North SW

Joins sheet 30, Dalton North SE

Joins sheet 31, Chatsworth SW



Joins sheet 39, Dalton South NW

Joins sheet 41, Calhoun NE NW

Joins sheet 46, Dalton South SW

Joins sheet 47, Dalton South SE

Joins sheet 48, Calhoun NE SW

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North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUARTER QUADRANGLE LOCATION

SCALE 1:12000

0.5 0 0.5
MILES

500 0 500 1000 1500 2000 2500 3000 3500
FEET

0.5 0 0.5
KILOMETERS

29	30	31
39		41
46	47	48

29 DALTON NORTH SW
30 DALTON NORTH SE
31 CHATSWORTH SW
39 DALTON SOUTH NW
41 CALHOUN NE NW
46 DALTON SOUTH SW
47 DALTON SOUTH SE
48 CALHOUN NE SW

INDEX TO ADJOINING 3.75 MAPS

DALTON SOUTH NE, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 40 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

MURRAY AND WHITFIELD COUNTIES, GEORGIA
CALHOUN NE NW QUADRANGLE
SHEET NUMBER 41 OF 58

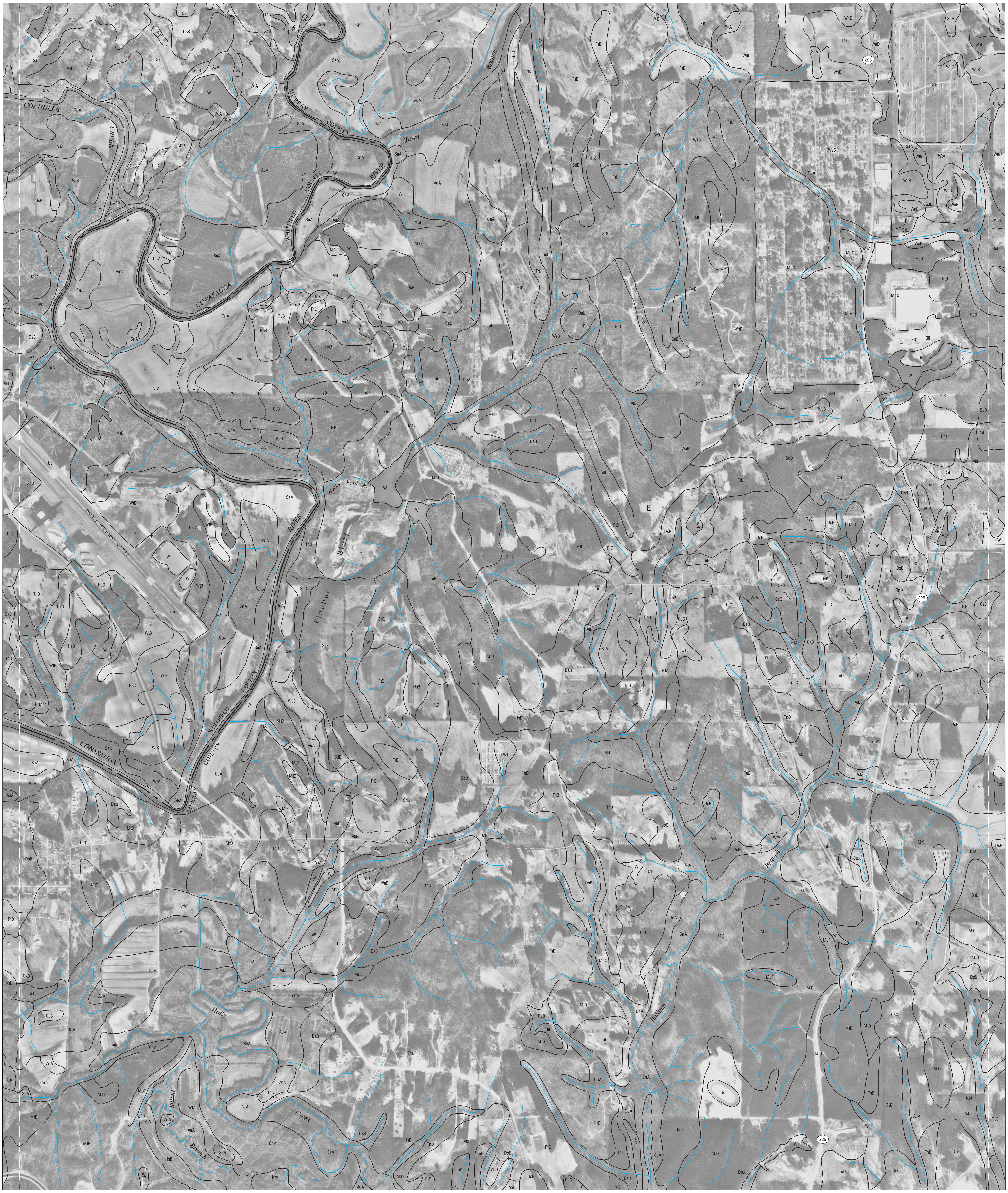
Joins sheet 30, Dalton North SE

Joins sheet 31, Chatsworth SW

Joins sheet 32, Chatsworth SE

84° 52′30″ 34° 45′00″

84° 48′45″ 34° 45′00″



Joins sheet 40, Dalton South NE

Joins sheet 42, Calhoun NE NE

34° 41′15″ 84° 52′30″

34° 41′15″ 84° 48′45″

Joins sheet 47, Dalton South SE

Joins sheet 48, Calhoun NE SW

Joins sheet 49, Calhoun NE SE

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North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUARTER QUADRANGLE LOCATION

SCALE 1:12000

0.5 0 0.5 MILES

500 0 500 1000 1500 2000 2500 3000 3500 FEET

0.5 0 0.5 KILOMETERS

30	31	32
40		42
47	48	49

30 DALTON NORTH SE
31 CHATSWORTH SW
32 CHATSWORTH SE
40 DALTON SOUTH NE
42 CALHOUN NE NE
47 DALTON SOUTH SE
48 CALHOUN NE SW
49 CALHOUN NE SE

INDEX TO ADJOINING 3.75 MAPS

CALHOUN NE NW, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 41 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

Joins sheet 31, Chatsworth SW

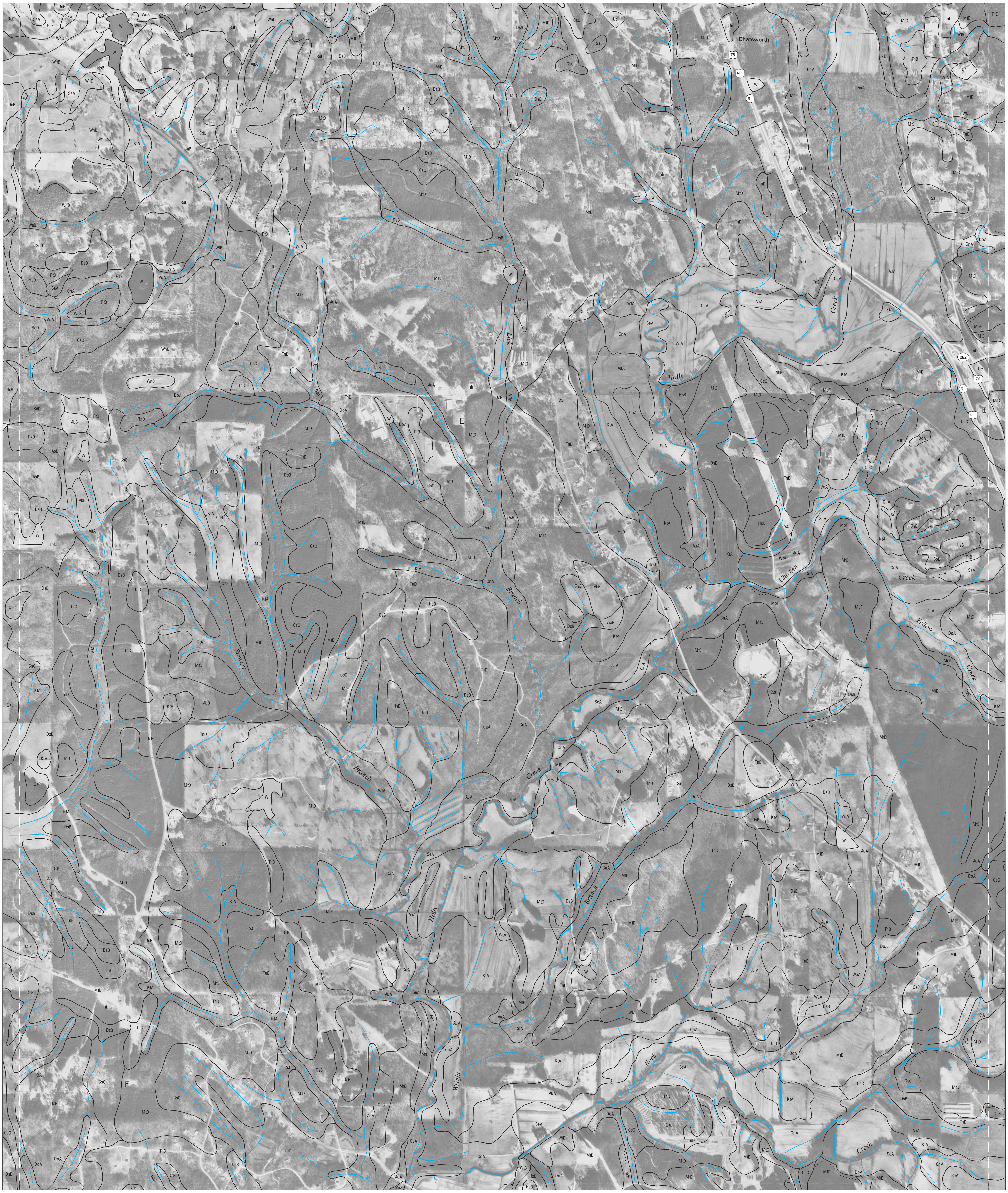
Joins sheet 32, Chatsworth SE

Joins sheet 33, Crandall SW

84° 48′ 45″ 84° 45′ 00″

34° 45′ 00″ 34° 45′ 00″

Joins sheet 41, Calhoun NE NW



Joins sheet 43, Ramhurst NW

34° 41′ 15″ 34° 41′ 15″

84° 48′ 45″ 84° 45′ 00″

Joins sheet 48, Calhoun NE SW

Joins sheet 49, Calhoun NE SE

Joins sheet 50, Ramhurst SW

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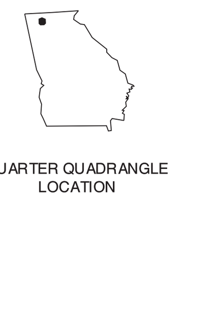
North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH



QUARTER QUADRANGLE LOCATION

SCALE 1:12000

0.5 0 0.5
MILES

500 0 500 1000 1500 2000 2500 3000 3500
FEET

0.5 0 0.5
KILOMETERS

31	32	33
41		43
48	49	50

31 CHATSWORTH SW
32 CHATSWORTH SE
33 CRANDALL SW
41 CALHOUN NE NW
43 RAMHURST NW
48 CALHOUN NE SW
49 CALHOUN NE SE
50 RAMHURST SW

INDEX TO ADJOINING 3.75 MAPS

CALHOUN NE NE, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 42 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

MURRAY AND WHITFIELD COUNTIES, GEORGIA
RAMHURST NW QUADRANGLE
SHEET NUMBER 43 OF 58

Joins sheet 32, Chatsworth SE

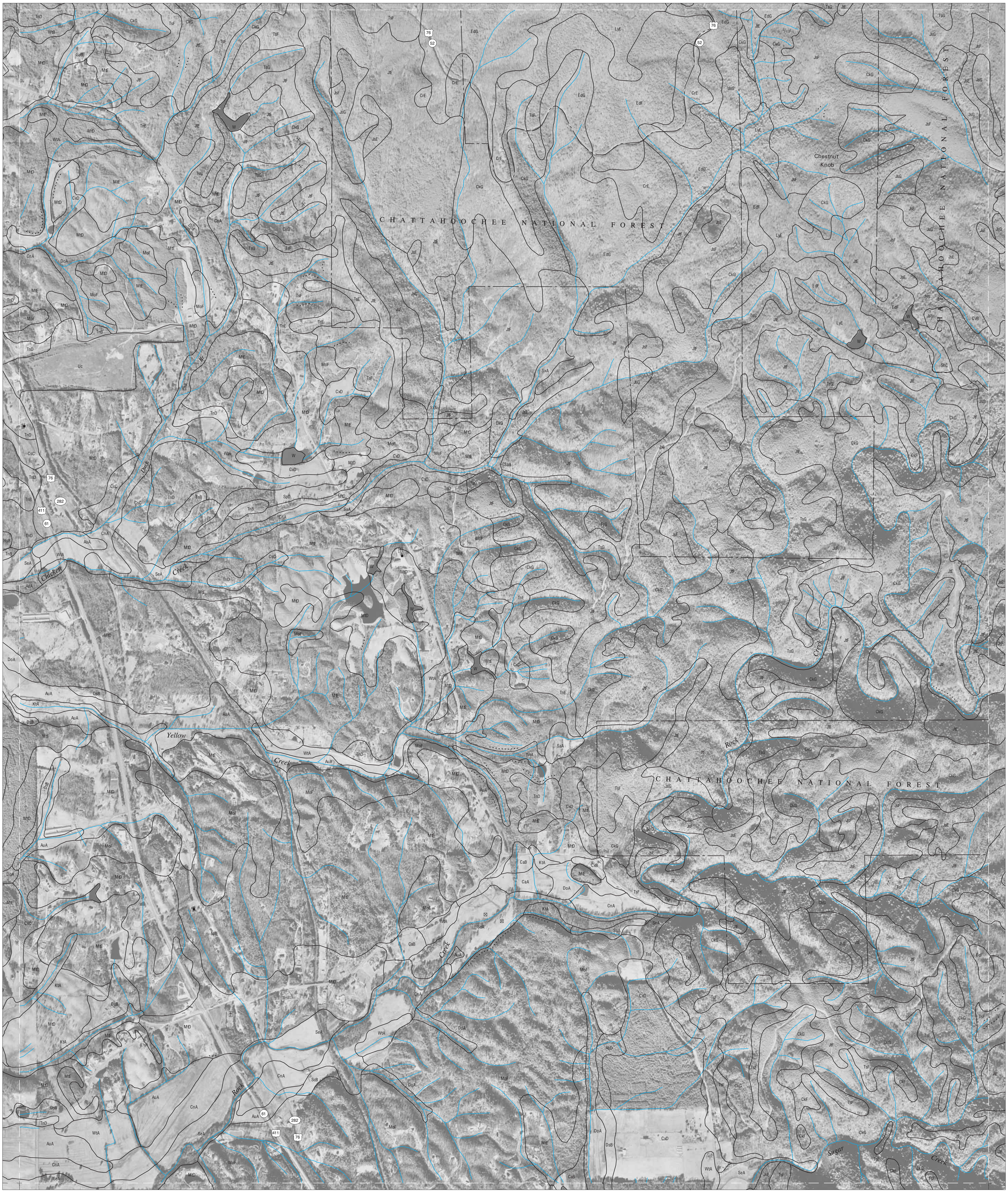
Joins sheet 33, Crandall SW

Joins sheet 34, Crandall SE

84° 45′00″

84° 41′15″

34° 45′00″



Joins sheet 42, Calhoun NE NE

Joins sheet 44, Ramhurst NE

34° 41′15″

84° 45′00″

84° 41′15″

Joins sheet 49, Calhoun NE SE

Joins sheet 50, Ramhurst SW

Joins sheet 51, Ramhurst SE

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North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUARTER QUADRANGLE LOCATION

SCALE 1:12000

0.5 0 0.5 MILES

500 0 500 1000 1500 2000 2500 3000 3500 FEET

0.5 0 0.5 KILOMETERS

32	33	34
42		44
49	50	51

32 CHATSWORTH SE
33 CRANDALL SW
34 CRANDALL SE
42 CALHOUN NE NE
44 RAMHURST NE
49 CALHOUN NE SE
50 RAMHURST SW
51 RAMHURST SE

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RAMHURST NW, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 43 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

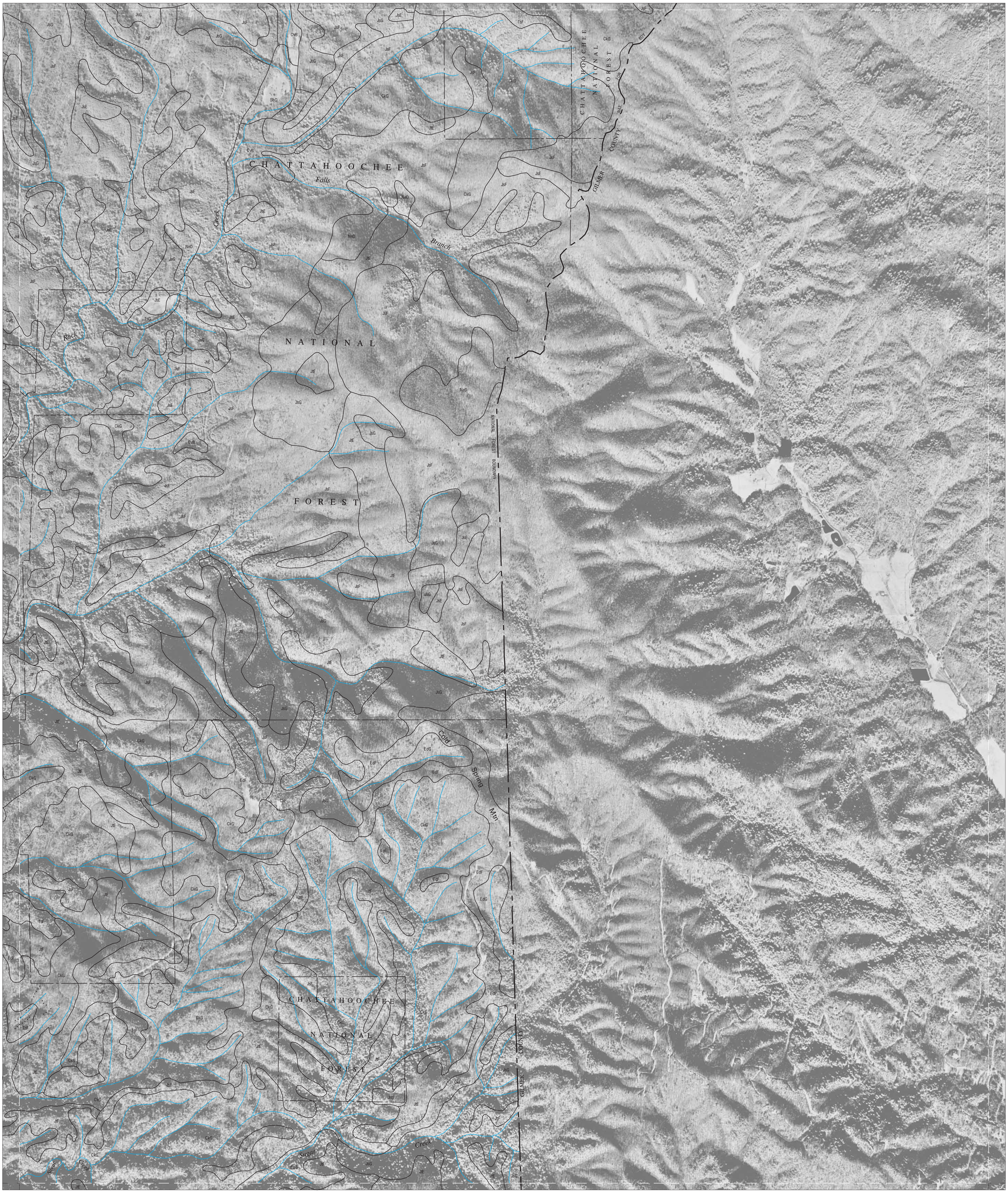
UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

MURRAY AND WHITFIELD COUNTIES, GEORGIA
RAMHURST NE QUADRANGLE
SHEET NUMBER 44 OF 58

Joins sheet 33, Crandall SW

Joins sheet 34, Crandall SE

Joins sheet 35, Dyer Gap SW



Joins sheet 51, Ramhurst SE

Joins sheet 50, Ramhurst SW

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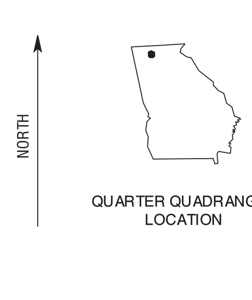
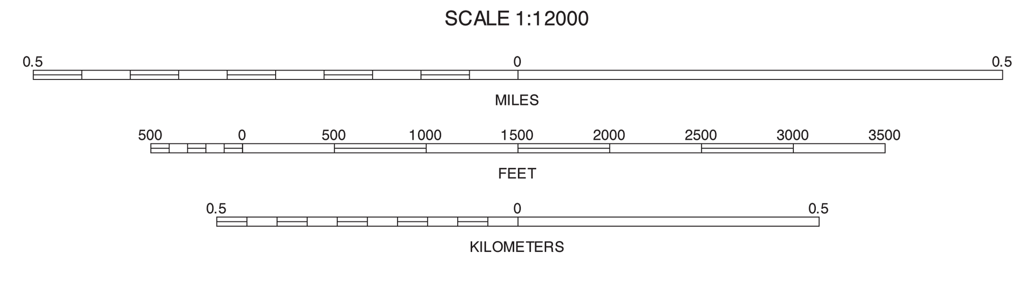
North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



QUARTER QUADRANGLE LOCATION

SCALE 1:12000



33	34	35
43		
50	51	

33 CRANDALL SW
34 CRANDALL SE
35 DYER GAP SW
43 RAMHURST NW
50 RAMHURST SW
51 RAMHURST SE

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RAMHURST NE, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 44 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

Joins sheet 37, Villanow NW

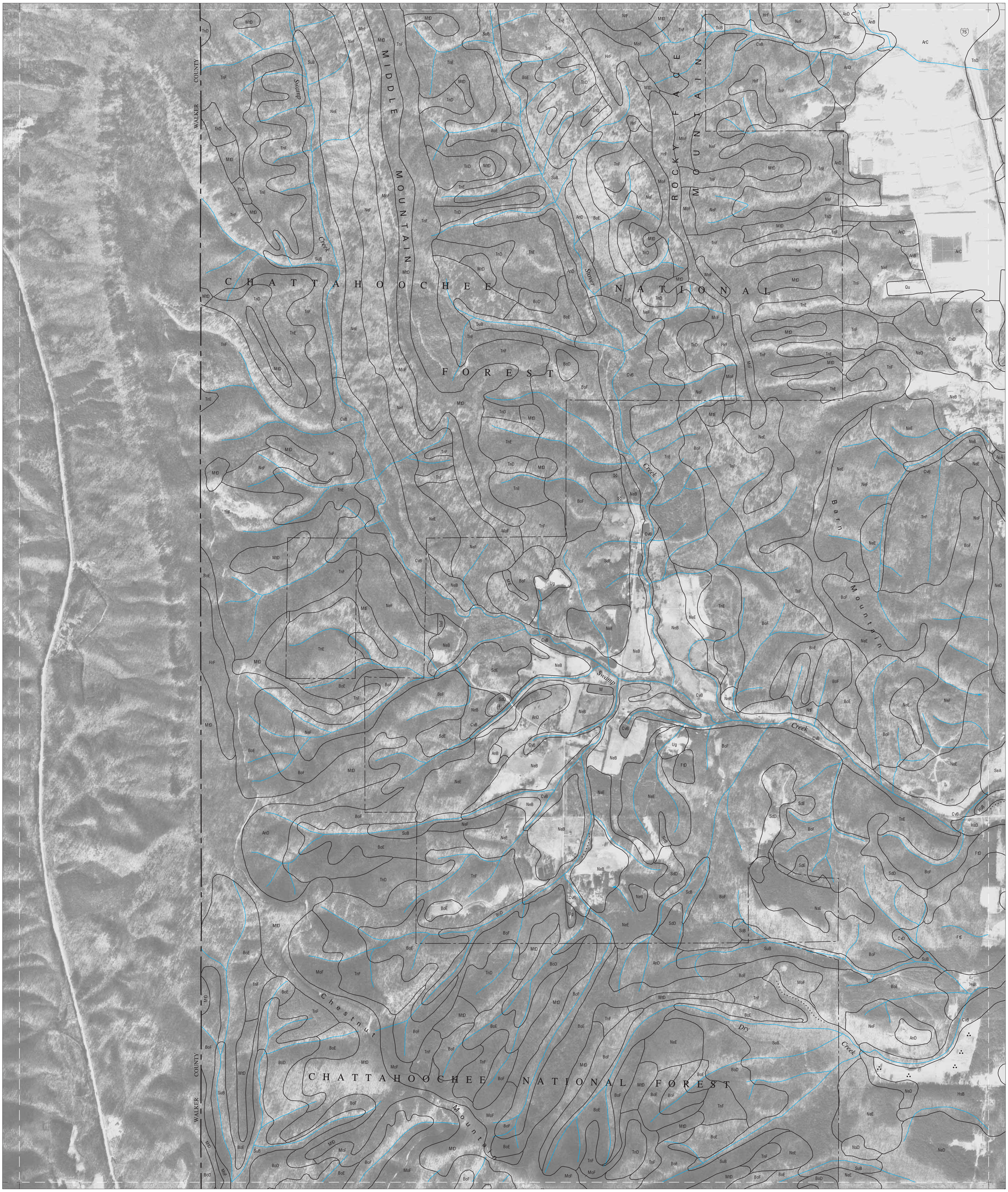
UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

Joins sheet 38, Villanow NE

MURRAY AND WHITFIELD COUNTIES, GEORGIA
VILLANOW SE QUADRANGLE
SHEET NUMBER 45 OF 58

Joins sheet 39, Dalton South NW

85° 03′45″ 34° 41′15″ 85° 00′00″ 34° 41′15″



Joins sheet 46, Dalton South SW

34° 37′30″ 85° 03′45″ 85° 00′00″ 34° 37′30″

Joins sheet 52, Sugar Valley NE

Joins sheet 53, Calhoun North NW

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service. Base maps are orthophotographs prepared by the U.S. Department of Interior, Geological Survey, from 1993 and 1994 aerial photography. Cultural and hydrography annotation was acquired from the U.S. Department of Interior, Geological Survey.

North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUARTER QUADRANGLE LOCATION

SCALE 1:12000

0.5 0 0.5 MILES

500 0 500 1000 1500 2000 2500 3000 3500 FEET

0.5 0 0.5 KILOMETERS

37	38	39
		46
	52	53

37 VILLANOW NW
38 VILLANOW NE
39 DALTON SOUTH NW
46 DALTON SOUTH SW
52 SUGAR VALLEY NE
53 CALHOUN NORTH NW

INDEX TO ADJOINING 3.75 MAPS

VILLANOW SE, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 45 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

Joins sheet 38, Villanow NE

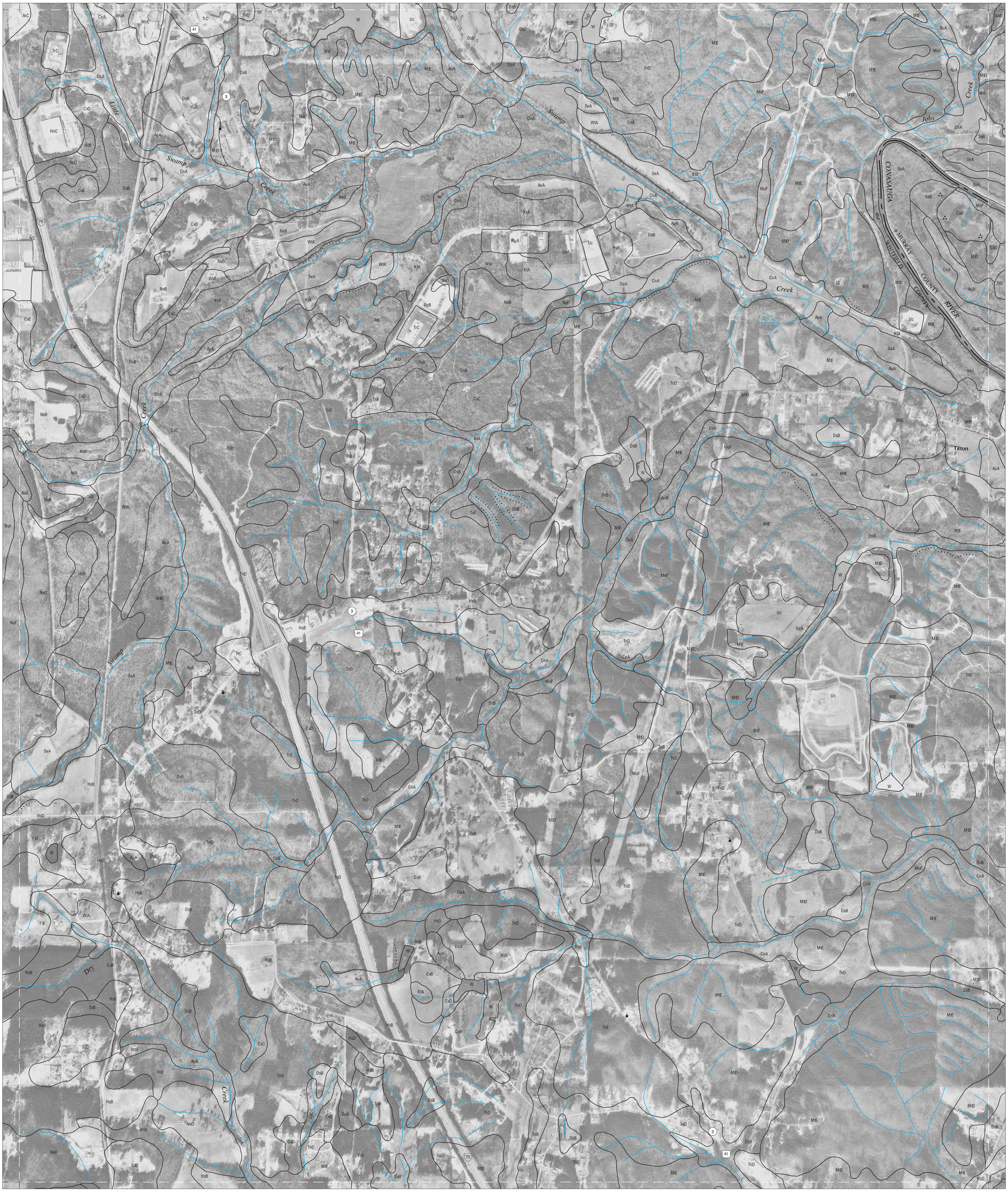
UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

MURRAY AND WHITFIELD COUNTIES, GEORGIA
DALTON SOUTH SW QUADRANGLE

Joins sheet 40, Dalton South NE

Joins sheet 39, Dalton South NW

85° 00'00" 34° 41'15" 84° 56'15" 34° 41'15"



Joins sheet 45, Villanow SE

Joins sheet 47, Dalton South SE

34° 37'30" 85° 00'00" 34° 37'30" 84° 56'15"

Joins sheet 52, Sugar Valley NE

Joins sheet 53, Calhoun North NW

Joins sheet 54, Calhoun North NE

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North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUARTER QUADRANGLE LOCATION

SCALE 1:12000

0.5 0 0.5
MILES

500 0 500 1000 1500 2000 2500 3000 3500
FEET

0.5 0 0.5
KILOMETERS

38	39	40
45		47
52	53	54

38 VILLANOW NE
39 DALTON SOUTH NW
40 DALTON SOUTH NE
45 VILLANOW SE
47 DALTON SOUTH SE
52 SUGAR VALLEY NE
53 CALHOUN NORTH NW
54 CALHOUN NORTH NE

INDEX TO ADJOINING 3.75 MAPS

DALTON SOUTH SW, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 46 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

MURRAY AND WHITFIELD COUNTIES, GEORGIA
DALTON SOUTH SE QUADRANGLE
SHEET NUMBER 47 OF 58

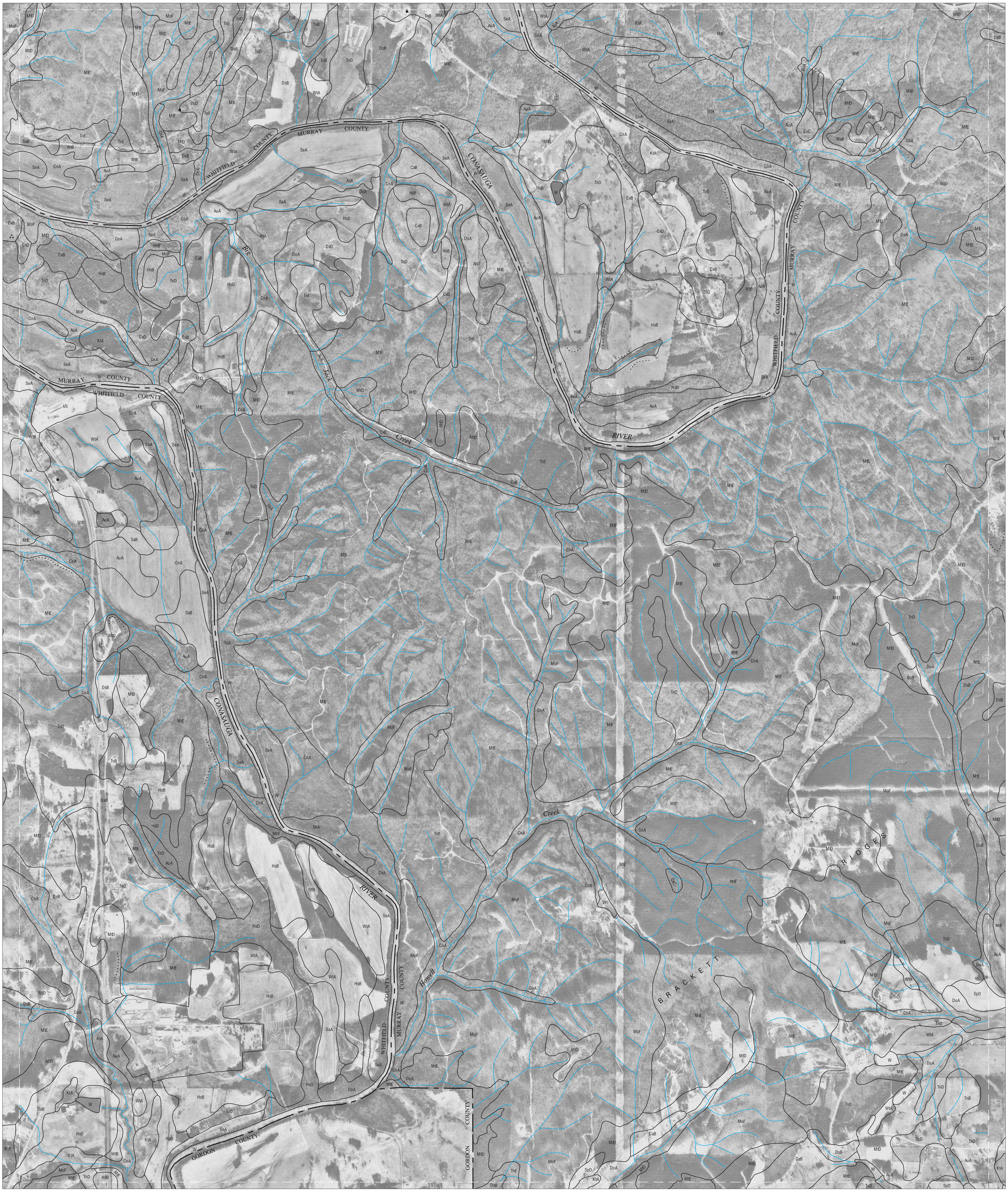
Joins sheet 39, Dalton South NW

Joins sheet 40, Dalton South NE

Joins sheet 41, Calhoun NE NW

84° 56′15″ 84° 52′30″

34° 41′15″ 34° 41′15″



34° 37′30″ 34° 37′30″

84° 56′15″ 84° 52′30″

Joins sheet 46, Dalton South SW

Joins sheet 48, Calhoun NE SW

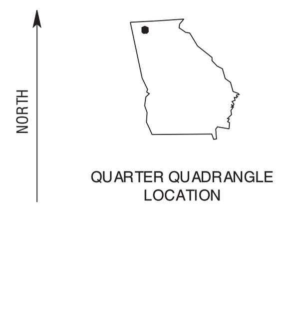
Joins sheet 53, Calhoun North NW

Joins sheet 54, Calhoun North NE

Joins sheet 55, Redbud NW

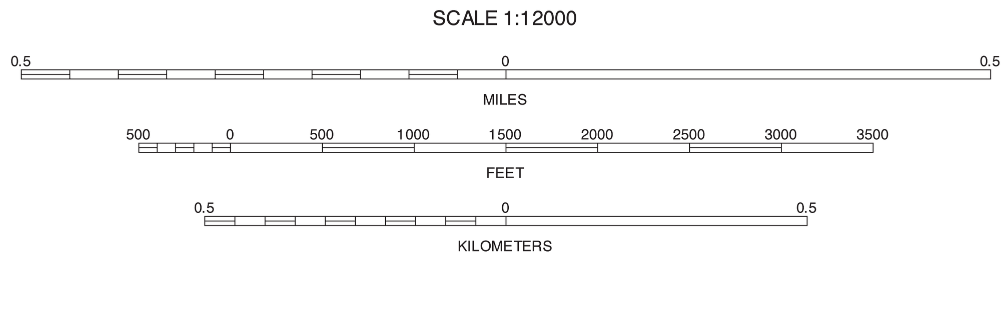
This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service. Base maps are orthophotographs prepared by the U.S. Department of Interior, Geological Survey, from 1993 and 1994 aerial photography. Cultural and hydrography annotation was acquired from the U.S. Department of Interior, Geological Survey.

North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



QUARTER QUADRANGLE LOCATION

SCALE 1:12000



39	40	41
46		48
53	54	55

39 DALTON SOUTH NW
40 DALTON SOUTH NE
41 CALHOUN NE NW
46 DALTON SOUTH SW
48 CALHOUN NE SW
53 CALHOUN NORTH NW
54 CALHOUN NORTH NE
55 REDBUD NW

INDEX TO ADJOINING 3.75 MAPS

DALTON SOUTH SE, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 47 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

Joins sheet 40, Dalton South NE

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

MURRAY AND WHITFIELD COUNTIES, GEORGIA
CALHOUN NE SW QUADRANGLE
SHEET NUMBER 48 OF 58

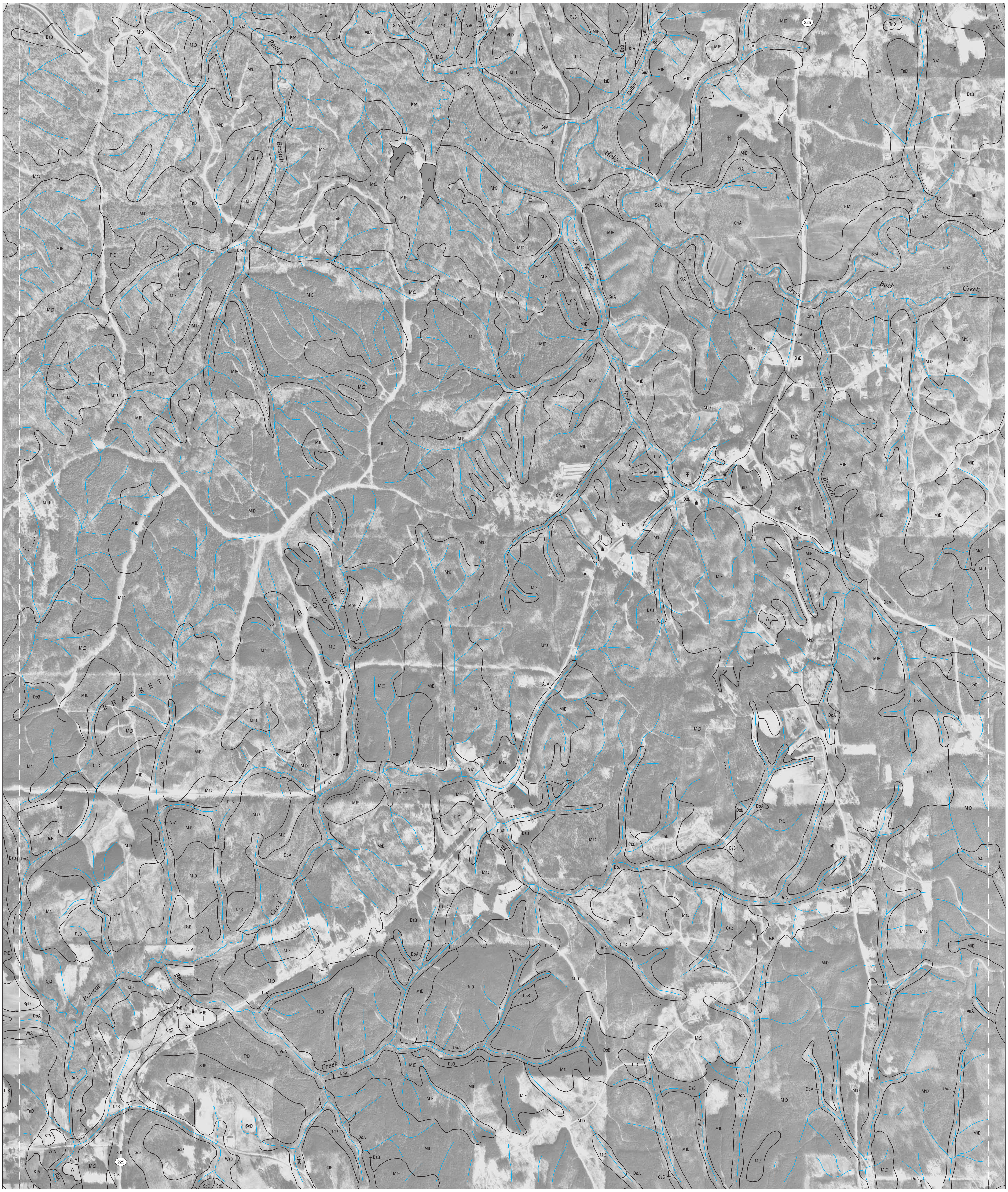
Joins sheet 42, Calhoun NE NE

Joins sheet 41, Calhoun NE NW

84° 52′30″ 84° 48′45″

34° 41′15″ 34° 41′15″

Joins sheet 47, Dalton South SE



Joins sheet 49, Calhoun NE SE

34° 37′30″ 34° 37′30″

84° 52′30″ 84° 48′45″

Joins sheet 55, Redbud NW

Joins sheet 54, Calhoun North NE

Joins sheet 56, Redbud NE

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North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUARTER QUADRANGLE LOCATION

SCALE 1:12000

0.5 0 0.5
MILES

500 0 500 1000 1500 2000 2500 3000 3500
FEET

0.5 0 0.5
KILOMETERS

40	41	42
47		49
54	55	56

40 DALTON SOUTH NE
41 CALHOUN NE NW
42 CALHOUN NE NE
47 DALTON SOUTH SE
49 CALHOUN NE SE
54 CALHOUN NORTH NE
55 REDBUD NW
56 REDBUD NE

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CALHOUN NE SW, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 48 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
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MURRAY AND WHITFIELD COUNTIES, GEORGIA
CALHOUN NE SE QUADRANGLE
SHEET NUMBER 49 OF 58

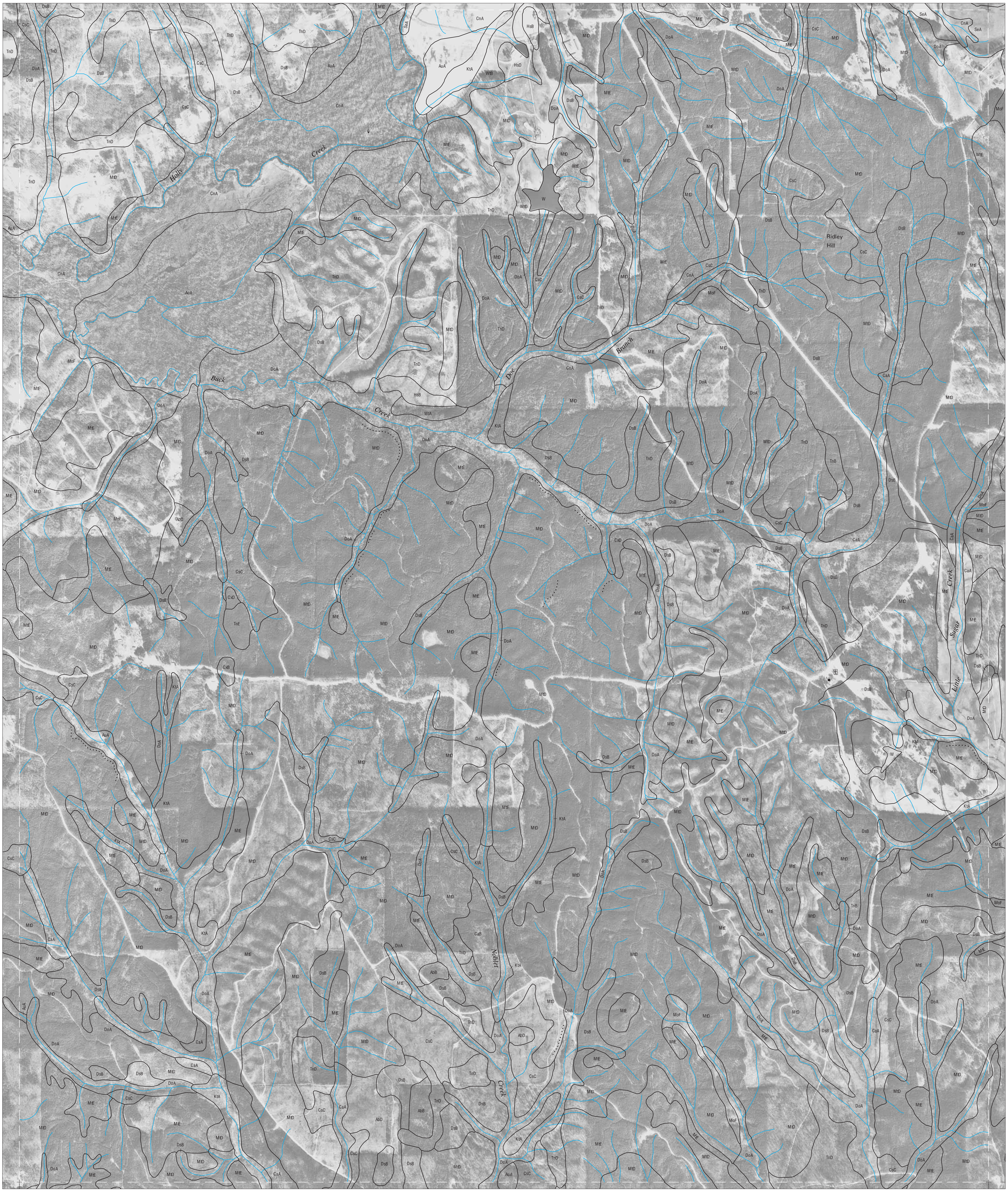
Joins sheet 41, Calhoun NE NW

Joins sheet 42, Calhoun NE NE

Joins sheet 43, Ramhurst NW

84° 48′45″ 84° 45′00″

34° 41′15″ 34° 41′15″



Joins sheet 48, Calhoun NE SW

Joins sheet 50, Ramhurst SW

34° 37′30″ 34° 37′30″

84° 48′45″ 84° 45′00″

Joins sheet 55, Redbud NW

Joins sheet 56, Redbud NE

Joins sheet 57, Oakman NW

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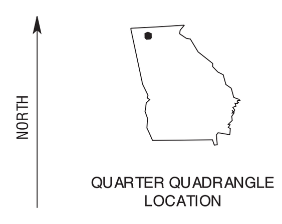
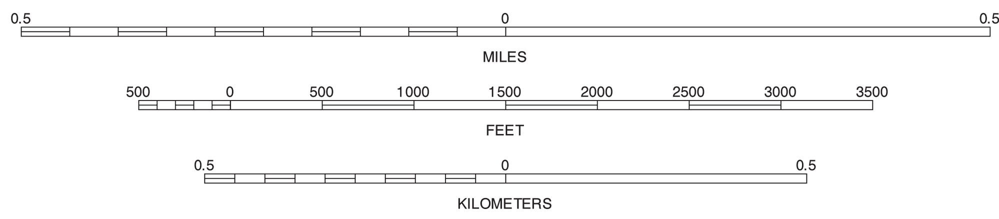
North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



QUARTER QUADRANGLE LOCATION

SCALE 1:12000



41	42	43
48		50
55	56	57

41 CALHOUN NE NW
42 CALHOUN NE NE
43 RAMHURST NW
48 CALHOUN NE SW
50 RAMHURST SW
55 REDBUD NW
56 REDBUD NE
57 OAKMAN NW

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CALHOUN NE SE, GEORGIA

3.75 MINUTE SERIES
SHEET NUMBER 49 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

Joins sheet 42, Calhoun NE NE

Joins sheet 43, Ramhurst NW

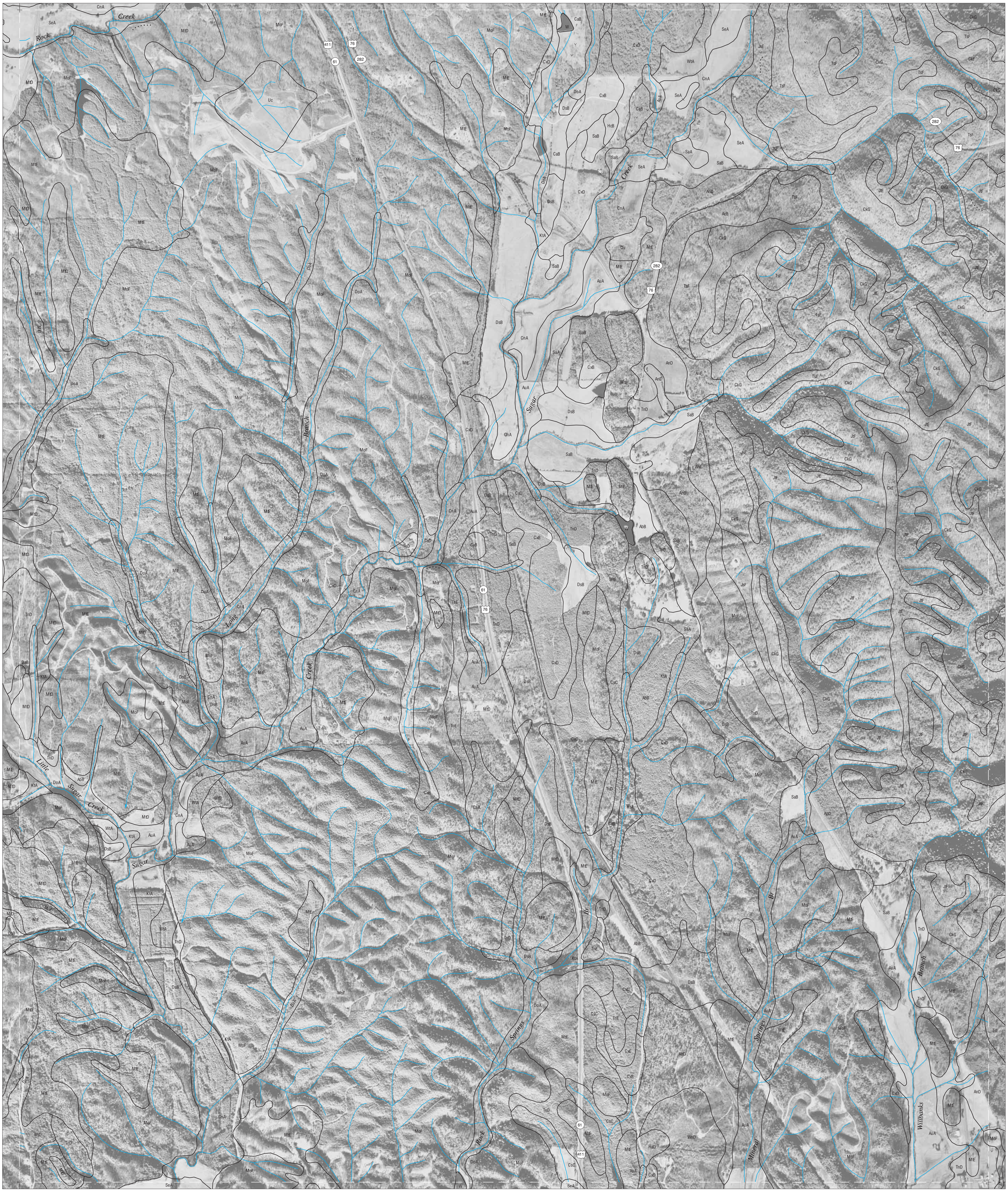
Joins sheet 44, Ramhurst NE

84° 45′00″ 84° 41′15″

34° 41′15″ 34° 41′15″

Joins sheet 49, Calhoun NE SE

Joins sheet 51, Ramhurst SE



34° 37′30″ 34° 37′30″

84° 45′00″ 84° 41′15″

Joins sheet 56, Redbud NE

Joins sheet 57, Oakman NW

Joins sheet 58, Oakman NE

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service. Base maps are orthophotographs prepared by the U.S. Department of Interior, Geological Survey, from 1993 and 1994 aerial photography. Cultural and hydrography annotation was acquired from the U.S. Department of Interior, Geological Survey.

North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUARTER QUADRANGLE LOCATION

SCALE 1:12000

0.5 0 0.5
MILES

500 0 500 1000 1500 2000 2500 3000 3500
FEET

0.5 0 0.5
KILOMETERS

42	43	44
49		51
56	57	58

42 CALHOUN NE NE
43 RAMHURST NW
44 RAMHURST NE
49 CALHOUN NE SE
51 RAMHURST SE
56 REDBUD NE
57 OAKMAN NW
58 OAKMAN NE

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RAMHURST SW, GEORGIA

3.75 MINUTE SERIES
SHEET NUMBER 50 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

Joins sheet 43, Ramhurst NW

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

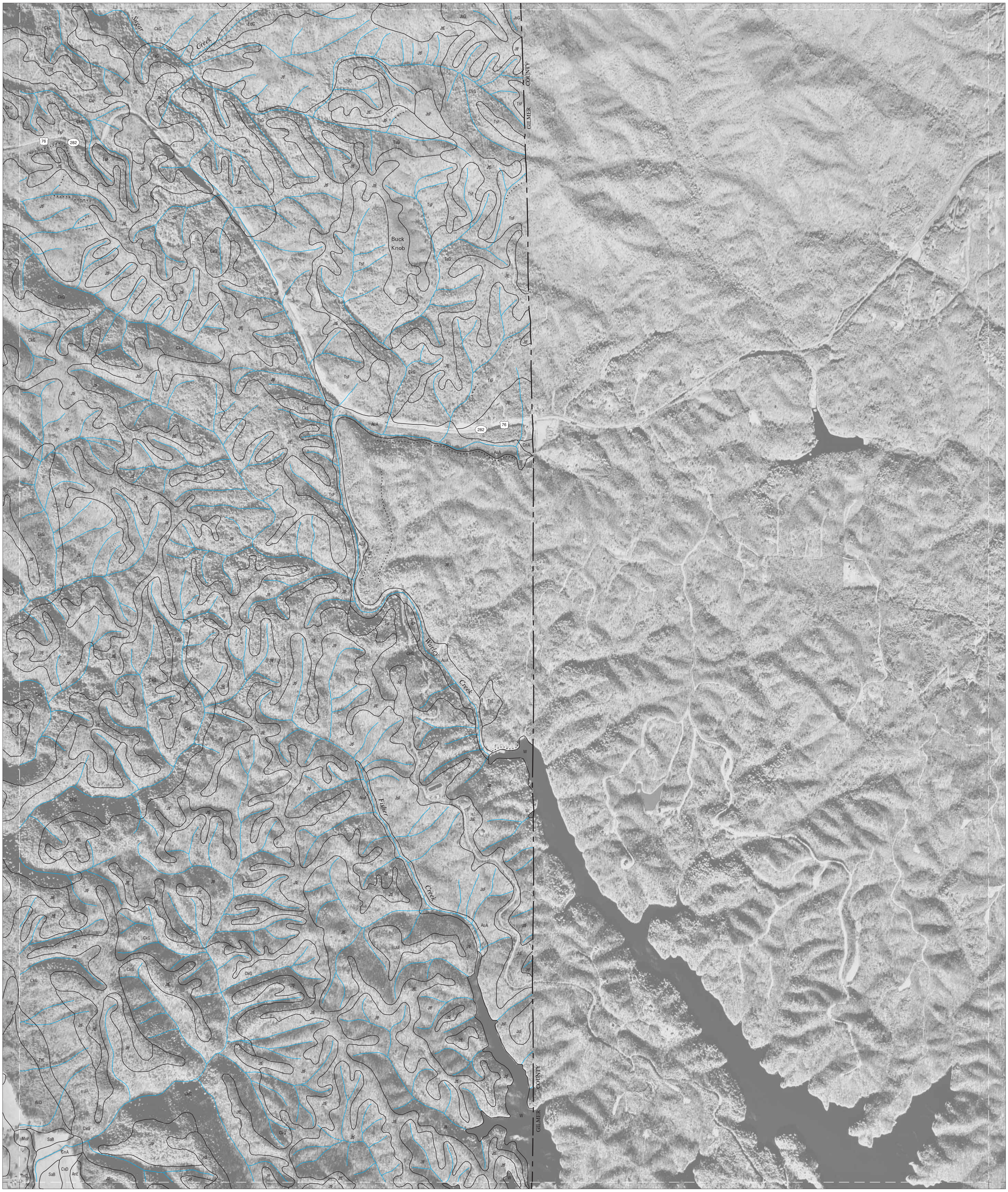
MURRAY AND WHITFIELD COUNTIES, GEORGIA
RAMHURST SE QUADRANGLE
SHEET NUMBER 51 OF 58

Joins sheet 44, Ramhurst NE

84° 41′15″ 84° 37′30″

34° 41′15″ 34° 41′15″

Joins sheet 50, Ramhurst SW



34° 37′30″ 34° 37′30″

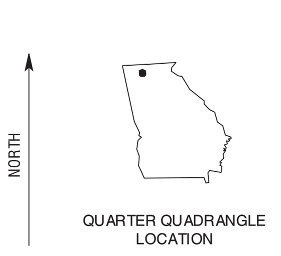
84° 41′15″ 84° 37′30″

Joins sheet 58, Oakman NE

Joins sheet 57, Oakman NW

This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service. Base maps are orthophotographs prepared by the U.S. Department of Interior, Geological Survey, from 1993 and 1994 aerial photography. Cultural and hydrography annotation was acquired from the U.S. Department of Interior, Geological Survey.

North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



QUARTER QUADRANGLE LOCATION

SCALE 1:12000

0.5 0 0.5
MILES

500 0 500 1000 1500 2000 2500 3000 3500
FEET

0.5 0 0.5
KILOMETERS

43	44	
50		
57	58	

43 RAMHURST NW
44 RAMHURST NE
50 RAMHURST SW
57 OAKMAN NW
58 OAKMAN NE

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RAMHURST SE, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 51 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

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DEPARTMENT OF AGRICULTURE
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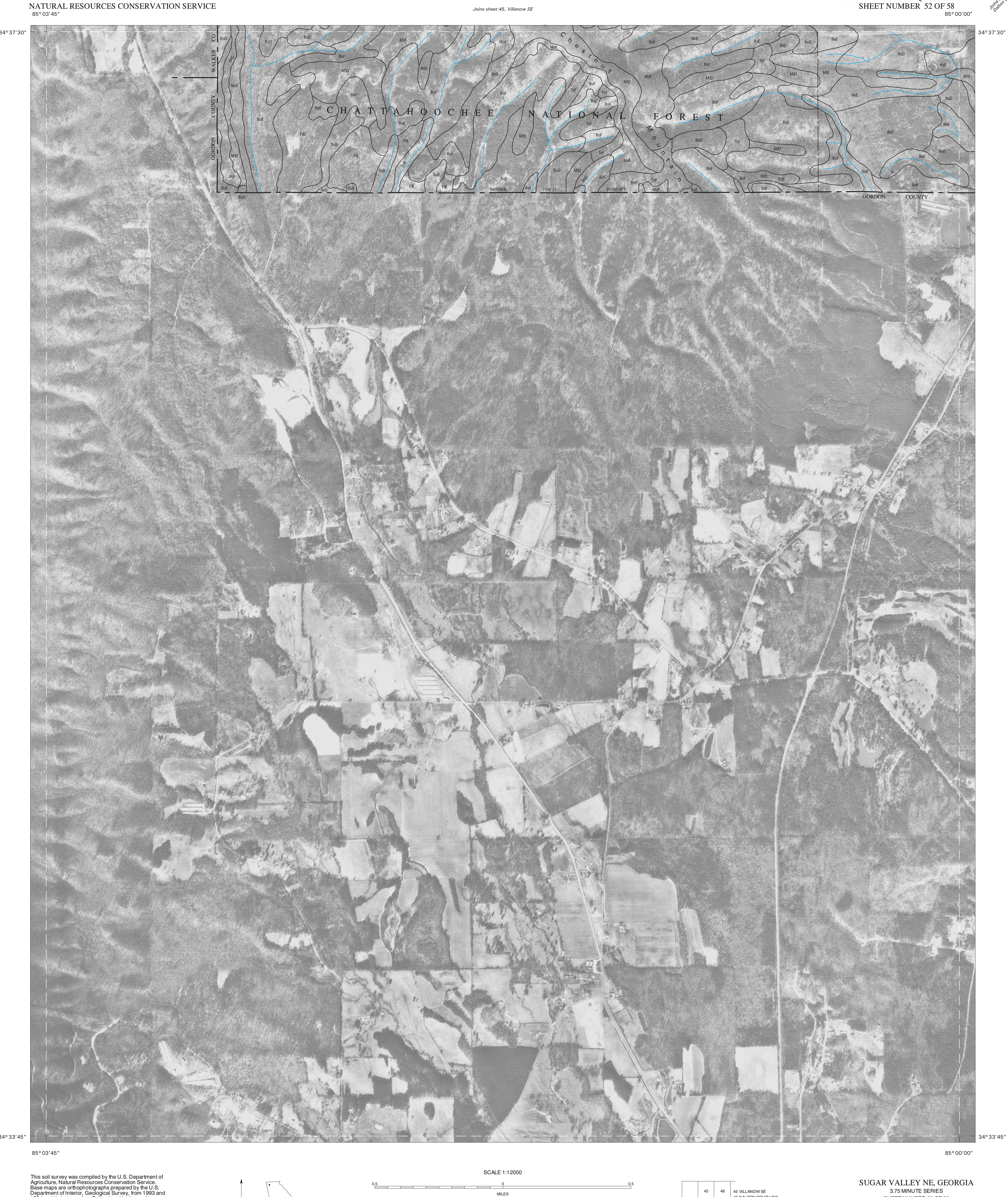
MURRAY AND WHITFIELD COUNTIES, GEORGIA
SUGAR VALLEY NE QUADRANGLE
SHEET NUMBER 52 OF 58



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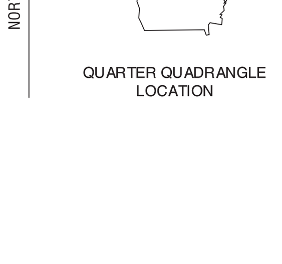
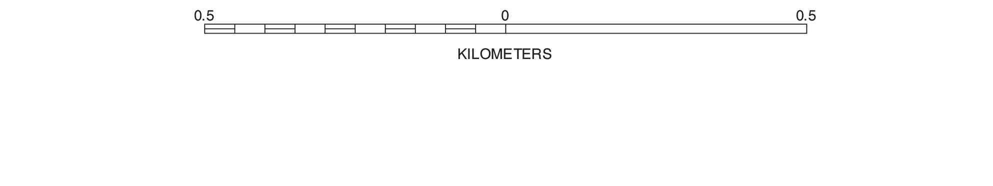
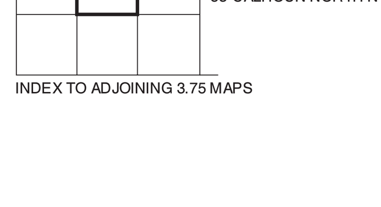
North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



QUARTER QUADRANGLE LOCATION

SCALE 1:12000





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SUGAR VALLEY NE, GEORGIA
3.75 MINUTE SERIES
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Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

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MURRAY AND WHITFIELD COUNTIES, GEORGIA
CALHOUN NORTH NW QUADRANGLE
SHEET NUMBER 53 OF 58

Joins sheet 45, Villanow SE

Joins sheet 46, Dalton South SW

Joins sheet 47, Dalton South SE

Joins sheet 52, Sugar Valley NE

Joins sheet 54, Calhoun North NE

85° 00′00″ 34° 37′30″ 84° 56′15″

34° 33′45″ 85° 00′00″ 84° 56′15″

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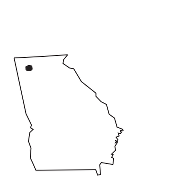
North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH



QUARTER QUADRANGLE LOCATION

SCALE 1:12000

0.5 0 0.5
MILES

500 0 500 1000 1500 2000 2500 3000 3500
FEET

0.5 0 0.5
KILOMETERS

45	46	47
52		54

45 VILLANOW SE
46 DALTON SOUTH SW
47 DALTON SOUTH SE
52 SUGAR VALLEY NE
54 CALHOUN NORTH NE

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CALHOUN NORTH NW, GEORGIA

3.75 MINUTE SERIES
SHEET NUMBER 53 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

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Joins sheet 47, Dalton South SE

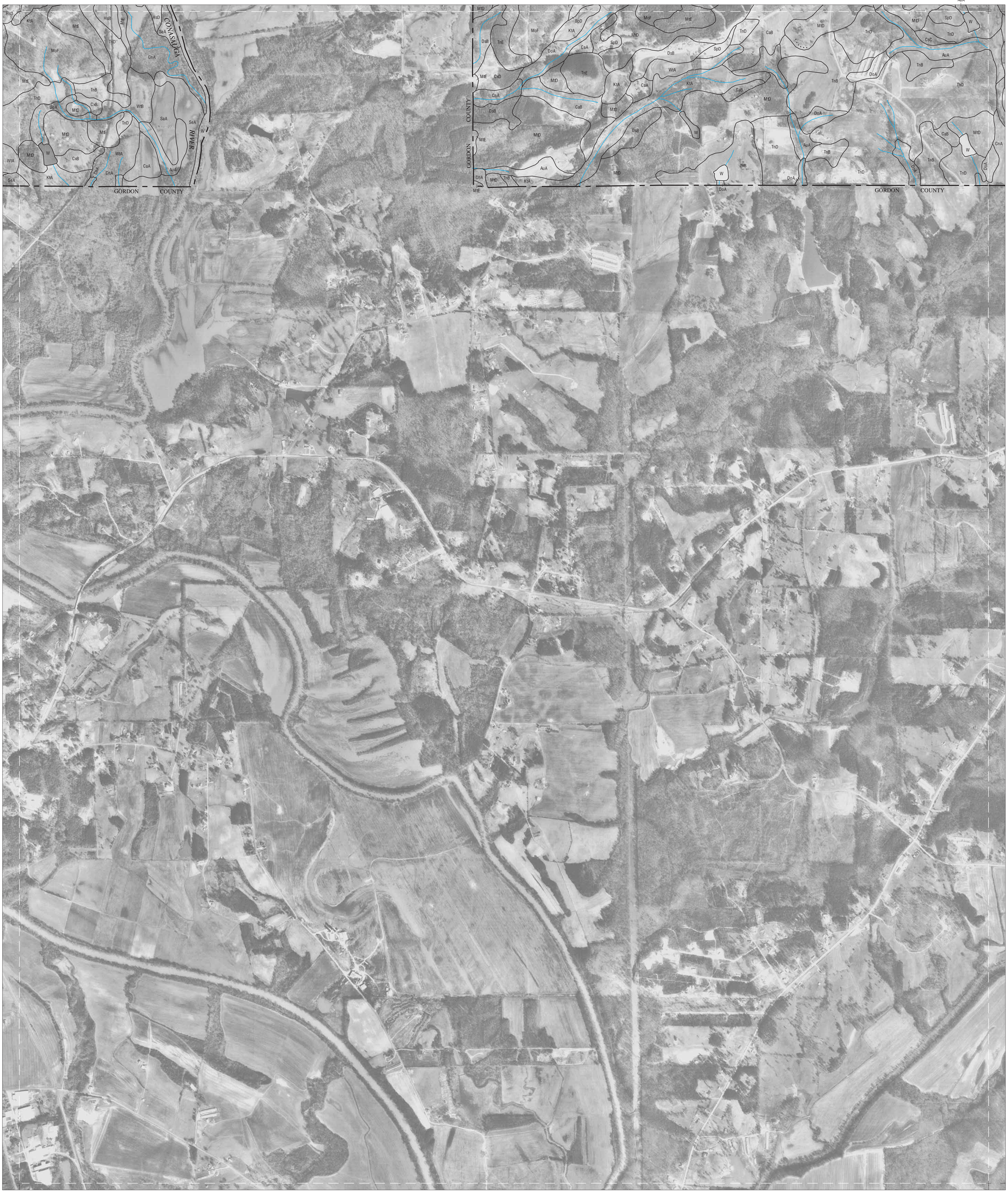
MURRAY AND WHITFIELD COUNTIES, GEORGIA
CALHOUN NORTH NE QUADRANGLE
SHEET NUMBER 54 OF 58

Joins sheet 48, Calhoun NE SW

84° 56′15″ 84° 52′30″

34° 37′30″ 34° 37′30″

Joins sheet 53, Calhoun North NW



Joins sheet 55, Redbud NW

34° 33′45″ 34° 33′45″

84° 56′15″ 84° 52′30″

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North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUARTER QUADRANGLE LOCATION

SCALE 1:12000

0.5 0 0.5
MILES

500 0 500 1000 1500 2000 2500 3000 3500
FEET

0.5 0 0.5
KILOMETERS

46	47	48
53		55

46 DALTON SOUTH SW
47 DALTON SOUTH SE
48 CALHOUN NE SW
53 CALHOUN NORTH NW
55 REDBUD NW

INDEX TO ADJOINING 3.75 MAPS

CALHOUN NORTH NE, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 54 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

Joins sheet 47, Dalton South SE

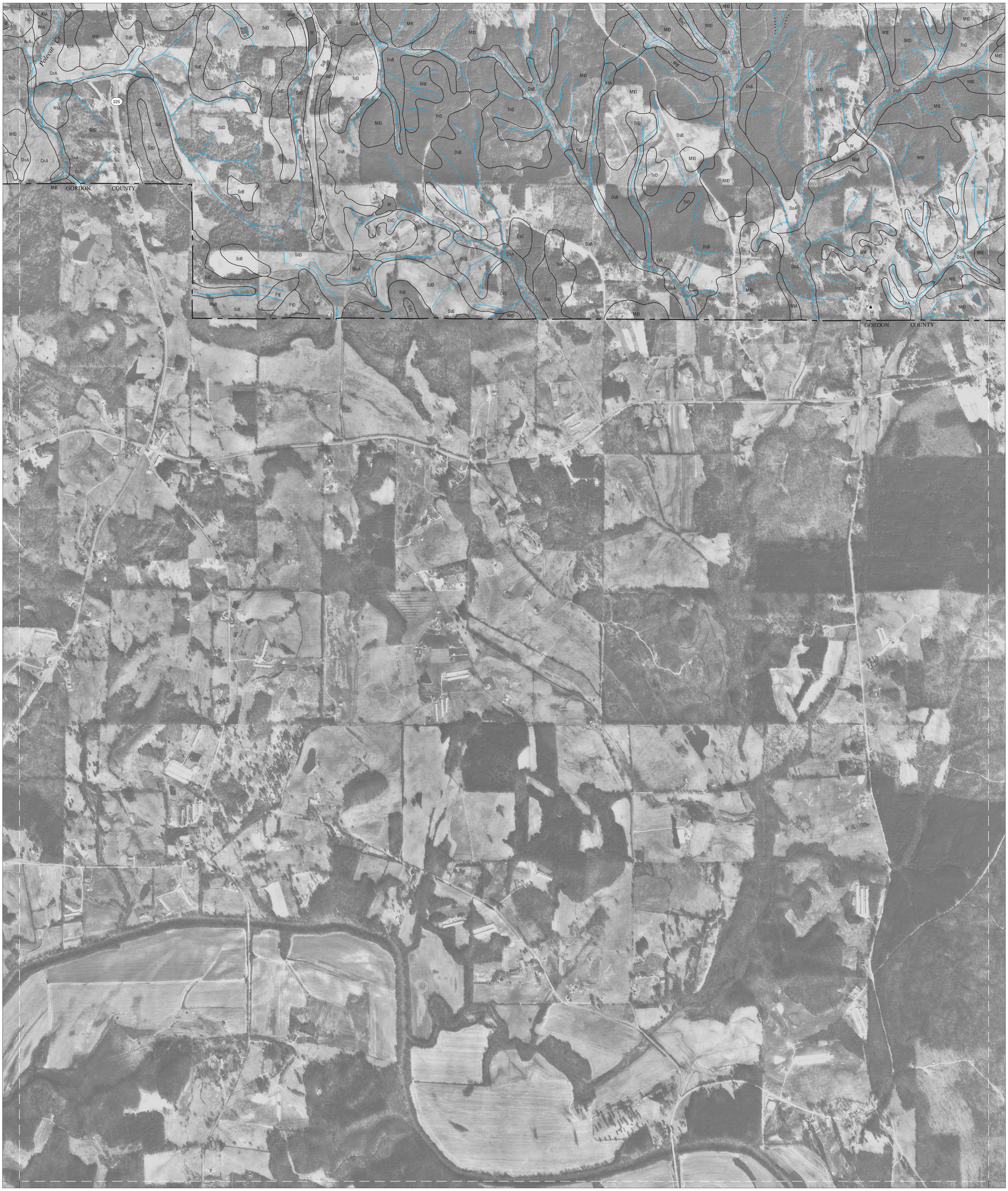
UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

Joins sheet 49, Calhoun NE SE

84° 52′30″ Joins sheet 48, Calhoun NE SW 84° 48′45″

34° 37′30″ 34° 37′30″

Joins sheet 54, Calhoun North NE



Joins sheet 56, Redbud NE

34° 33′45″ 34° 33′45″

84° 52′30″ 84° 48′45″

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North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.

NORTH

QUARTER QUADRANGLE LOCATION

SCALE 1:12000

0.5 0 0.5
MILES

500 0 500 1000 1500 2000 2500 3000 3500
FEET

0.5 0 0.5
KILOMETERS

47	48	49
54		56

47 DALTON SOUTH SE
48 CALHOUN NE SW
49 CALHOUN NE SE
54 CALHOUN NORTH NE
56 REDBUD NE

INDEX TO ADJOINING 3.75 MAPS

REDBUD NW, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 55 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

MURRAY AND WHITFIELD COUNTIES, GEORGIA
REDBUD NE QUADRANGLE
SHEET NUMBER 56 OF 58

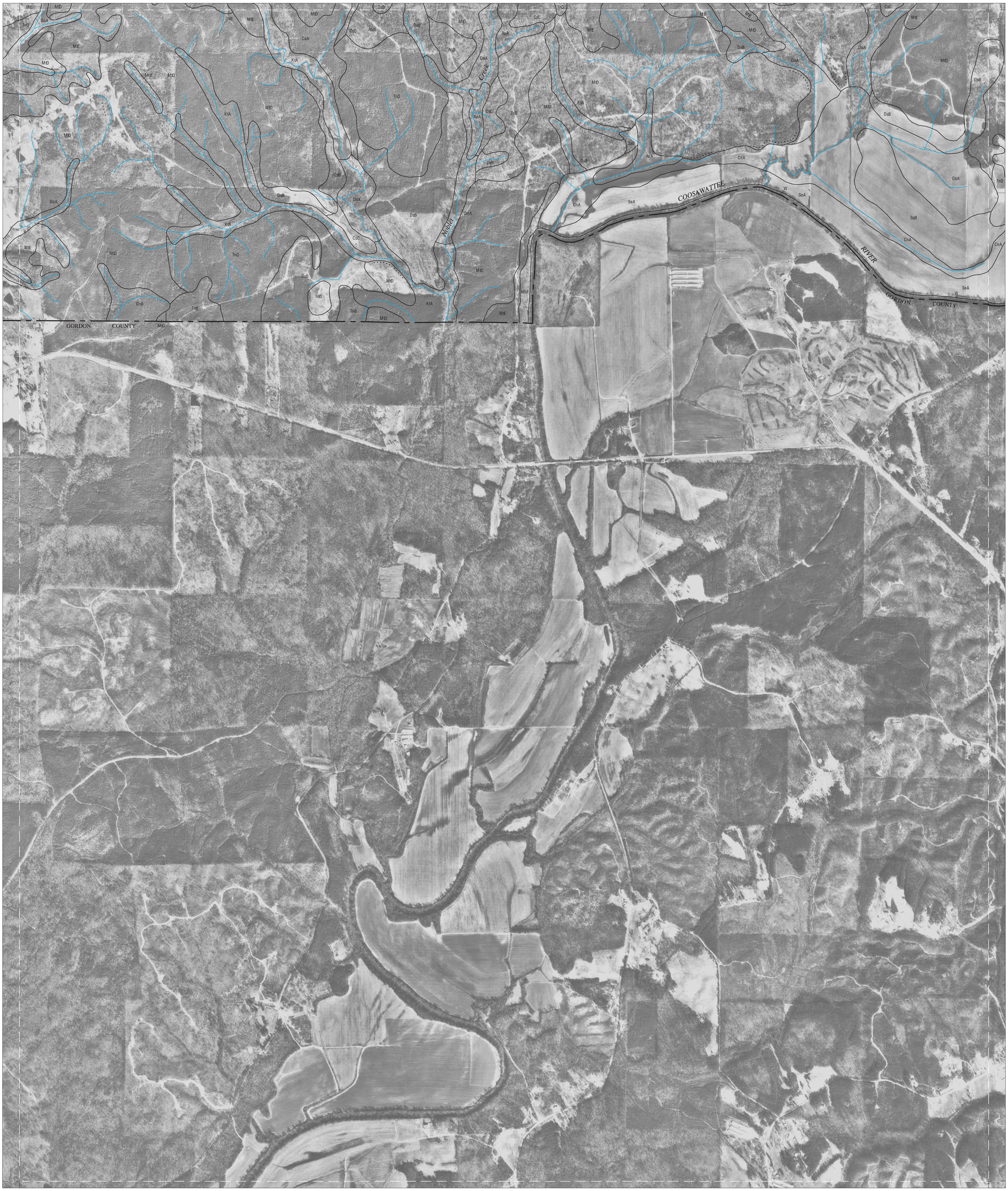
Joins sheet 48, Calhoun NE SW

Joins sheet 49, Calhoun NE SE

Joins sheet 50, Ramhurst SW

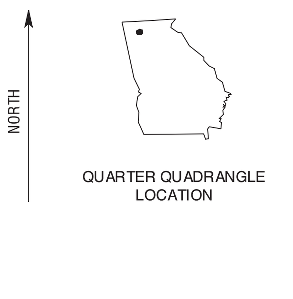
Joins sheet 55, Redbud NW

Joins sheet 57, Oakman NW



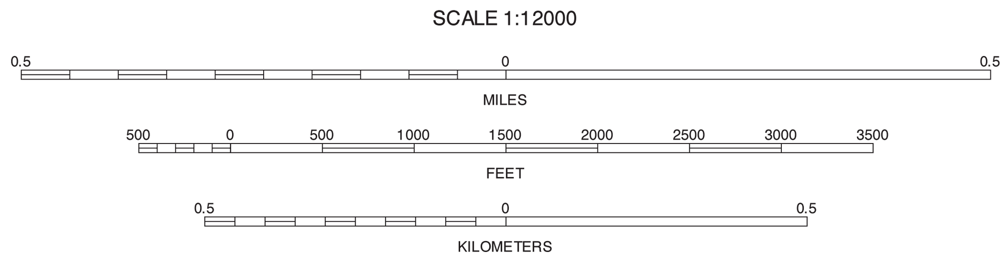
This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service. Base maps are orthophotographs prepared by the U.S. Department of Interior, Geological Survey, from 1993 and 1994 aerial photography. Cultural and hydrography annotation was acquired from the U.S. Department of Interior, Geological Survey.

North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



QUARTER QUADRANGLE LOCATION

SCALE 1:12000



48	49	50
55		57

48 CALHOUN NE SW
49 CALHOUN NE SE
50 RAMHURST SW
55 REDBUD NW
57 OAKMAN NW

INDEX TO ADJOINING 3.75 MAPS

REDBUD NE, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 56 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

UNITED STATES
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

MURRAY AND WHITFIELD COUNTIES, GEORGIA
OAKMAN NW QUADRANGLE
SHEET NUMBER 57 OF 58

Joins sheet 49, Calhoun NE SE

Joins sheet 50, Ramhurst SW

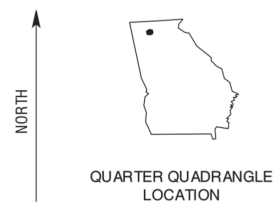
Joins sheet 51, Ramhurst SE

Joins sheet 56, Redbud NE

Joins sheet 58, Oakman NE

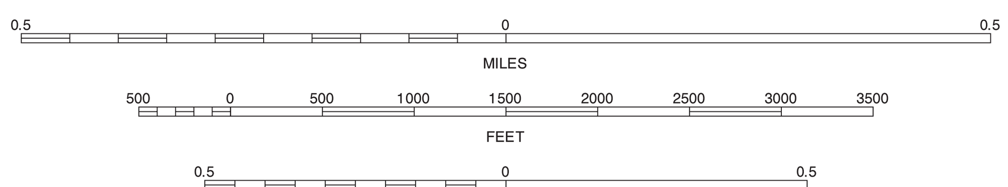
This soil survey was compiled by the U.S. Department of Agriculture, Natural Resources Conservation Service. Base maps are orthophotographs prepared by the U.S. Department of Interior, Geological Survey, from 1993 and 1994 aerial photography. Cultural and hydrography annotation was acquired from the U.S. Department of Interior, Geological Survey.

North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



QUARTER QUADRANGLE LOCATION

SCALE 1:12000



49	50	51
56		58

49 CALHOUN NE SE
50 RAMHURST SW
51 RAMHURST SE
56 REDBUD NE
58 OAKMAN NE

INDEX TO ADJOINING 3.75 MAPS

OAKMAN NW, GEORGIA

3.75 MINUTE SERIES
SHEET NUMBER 57 OF 58

Soil map delineations extending beyond the dashed white quadrangle neatline are for reference only and are included on adjacent map sheets.

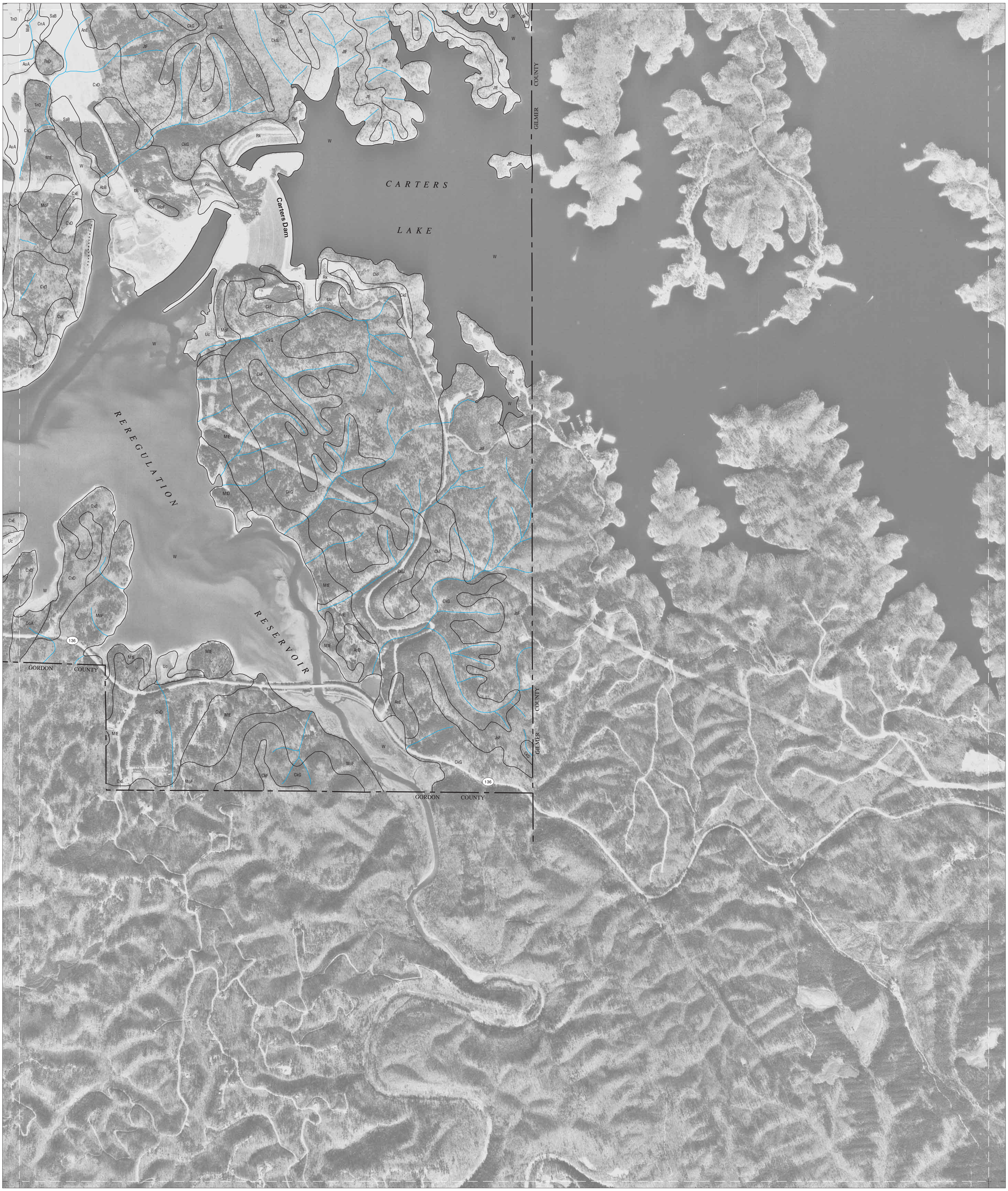
Joins sheet 50, Ramhurst SW

Joins sheet 51, Ramhurst SE

Joins sheet 57, Oakman NW

84° 41′15″ 84° 37′30″

34° 37′30″ 34° 37′30″



34° 33′45″ 34° 33′45″

84° 41′15″ 84° 37′30″

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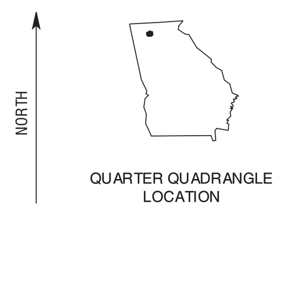
North American Datum of 1983 (NAD83). GRS-80 Spheroid Universal Transverse Mercator, zone 16. Coordinate grid ticks and land division data, if shown, are approximately positioned. Digital data are available for this quadrangle.



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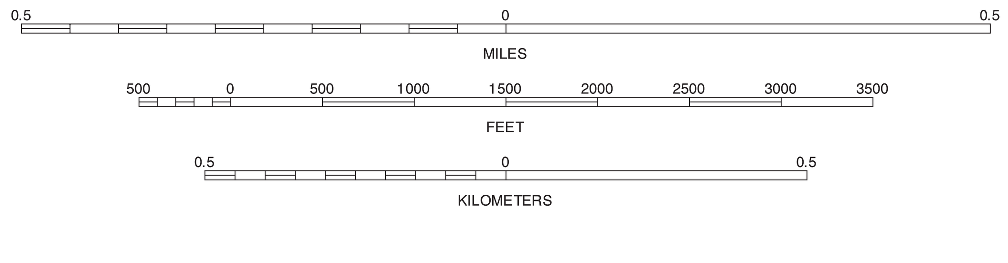

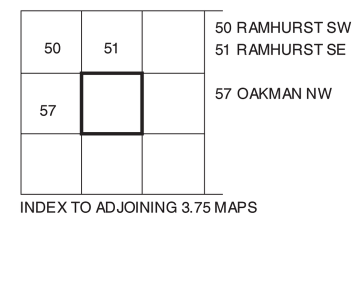

OAKMAN NE, GEORGIA
3.75 MINUTE SERIES
SHEET NUMBER 58 OF 58

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